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# **ANALYTIC SYSTEM**

FOR THE

**MEASUREMENT**

OF

# **RELATIVE FIRE HAZARD**

(MERCANTILE CLASSES)

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## PREFACE.

THE practical fire-underwriter is seldom interested in abstractions. The necessities of his calling demand a tariff that will measure fire-hazard satisfactorily to all concerned, and without caring to know the whys and wherefores of the reasoning process which creates this tariff, his sole enquiry is apt to be, Will it work?

Unfortunately many of the tariffs constructed in the past have refused to work, and that none of them has worked satisfactorily for any length of time is shown by the unending succession of new tariffs with potentialities for good or evil which no man can foresee.

This is especially true of the mercantile class, composed as it is, of the intermingled hazards, resulting from external exposures and multiple occupancies, found in the business districts of towns and cities. The task of constructing a satisfactory and enduring mercantile schedule has perplexed the best minds in the fire underwriting world for more than a generation and the results achieved have not been such as to commend themselves to either the buyers or sellers of fire indemnity. A few years since it was hoped that the Universal Mercantile Schedule had solved the problem. This system abrogated the differentials in state basis rates along with the classification of structure and municipal protection, but the re-establishment of these things one by one in later tariffs is *prima facie* evidence that the solution of the tariff problem does not lie in the banishment of classification.

Without attempting to explain the rationale of the tariff in the following pages, and irrespective of its merits or demerits, it is proper to say that it has been built upon an independent line of reasoning, so widely different from all precedent, that it is at least entitled to be called a system—this is no less true because of the fact that the underlying principles upon which the tariff has been constructed are equally available for the construction of basis tariffs of classes other than mercantile.

Exposure and Occupancy constitute the real substance of fire hazard. The building is an inclosing or intervening body which, according to its fire resisting qualities, serves to segregate hazard. It is not causative—does not in itself start fires, but as a medium may contribute to their spread or repression.

While a reasonable analysis of structural features is indispensable, it is safe to say that any tariff that carries the analysis of building to the last extreme, while dismissing occupancy and exposure with rule-of-thumb treatment, is an incomplete tariff.

An examination of the contents of this tariff will convince the most sceptical that whatever faults it may have, these important elements of hazard have not been evaded. Rules are not laid down and left for the practical rater to discover their absurdity. Exposures are followed in all their ramifications and the rules actually applied to illustrative diagrams. That these formulas have, in large measure, the equational truth of mathematics is obvious from the fact that long blocks of buildings of the most varied structure and occupancy solidly built, or separated by irregular spaces, have been figured out independently by different raters with results identical for every building in the block. It might be claimed, perhaps, truthfully, that the rates so established were too high or too low, but this criticism does not go to the method, for it would simply involve such slight modification of the ratios upon which the exposures were figured, as judgment might suggest. The vital fact is that the formulas provide a uniform and unquestionably logical method of figuring exposures in thousands of situations where in the past raters have had no landmarks whatever for their guidance.

In the matter of occupancy there is no evidence that classification has played more than a rudimentary part in any existing tariff. In any event the classification of occupancy found in the appendix of this tariff is the first that has been made with reference to the three phases of causation—cause, medium and effect. The cause that starts a fire is a thing apart from the medium that spreads it, and many of the inconsistencies in existing tariffs are plainly traceable to their failure to differentiate the cause from the medium upon which it acts. Nothing in the purview of physics is more plainly implicated in the three links of causation than fire hazard, and that a classification upon this basis is soundly logical is shown by the numerous instances where this classification has clarified the muddle produced by tariffs in which cause and medium are treated as one and inseparable.

In modern tariffs stocks in brick buildings invariably rate higher than their containing buildings. During recent years the tendency has been to increase contents differentials to meet a persistently unfavorable experience with stocks as compared with buildings. No attempt seems ever to have been made to compute these differentials by any mathematical formula. They are clearly caused by the relative value of municipal protection of different grades to the building itself and to its contents, according to the classified damageability of the latter. The tables of differentials in the brick portion of this tariff have been computed on this theory and em-

body the first attempt to apply mathematical treatment in lieu of the conjectural treatment, which in the past has made it almost impossible to establish an intelligent comparison between the alphabetical occupancy lists in any two tariffs.

From small beginnings the use of this system during the past five years has spread into twenty or more states, where it has become the recognized schedule for measuring fire hazard in business districts in towns and cities of all grades of municipal protection. This fact in itself seems to be an adequate answer to the question, Will it work? but in view of the temporary nature of tariffs in the past, there remains another question, vastly more important to underwriting interests and that is, Will it continue to work? This involves the question whether, like all existing tariffs, it is something in the nature of an eight day clock that cannot be rewound, or a thing that will continue to perform its functions with unimpaired accuracy next year or for that matter during the next century. Permanency is the real desideratum in a tariff, which should be an instrument for the measurement of fire hazard for all time, just as the clock, compass, thermometer or foot-rule are permanent instruments of measurement in their respective specialties.

In this connection it is proper to suggest the truism that fire underwriting is a business transacted upon averages. Fire hazard as a whole is a compound, not of dissociated but of related parts, and each part is as amenable to the law of averages as the total composed of all these parts. If, under the law of averages, a thousand buildings of given construction, occupancy and protection will show a given ratio of loss to value during a given period, under the same law a thousand flues, hatchways, sky-lights, well-holes, wooden ceilings, or other parts of the building, of given construction will each contribute its unvarying quota of this ratio, hence the several parts stand in a position of unchanging relativity, not only to the whole but each to the others. Fire hazard is, by nature, a net work of relativity. In constructing a basis schedule we necessarily select certain features of hazard as separable and attach to each of these a charge, while to the residue consisting of unanalyzable parts we attach a lump charge and call it a basis rate. There is no intrinsic difference between the charge we call a basis rate and the other charges excepting that it includes all things too obscure, indefinite or unimportant to schedule. If under the law of averages the relativity between the whole and its parts does not change, and the relativity among the several parts themselves is constant, it follows that each charge

bears an unvarying relation to the basis rate, or, conversely, the basis rate a constant relation to the other charges. This being the case it is false logic to treat the basis rate or any of the charges as a dissociated element of hazard, for every change in basis rate or charge involves a disturbance of their mutual relativity. The real question in establishing every charge is, What ratio of the total loss will this feature of hazard under the law of average probably contribute? When this ratio has been established by judgment and experience, it should take its place in every schedule as a fixed ratio bearing a constant relation to the whole and its several parts. This end may be reached by making all charges percentages of some common standard and the natural, in fact, only possible standard for this purpose is the basis rate, because it enters into every rate while other charges do not. It is true that certain features of hazard are not related in the same way as others, and their exceptional relativity must be recognized and dealt with. These features embrace protection, public and private, and the differentials between the hazard of contents and building. Protection spreads over all the factors of hazard and a credit for protection should apply to the sum of hazard and not to the basis rate, while damageability is implicated with protection and location and must be dealt with separately.

This principle of relativity is recognized by every existing tariff, not systematically but incidentally. Liberal reductions are made from the total rate for features of occupancy, structure, co-insurance and private protection, but none of these tariffs recognizes municipal protection as entitled to similar treatment, and as a consequence many of the charges under the higher grades of protection are relatively 50 to 100 per cent. higher than under the lower grades of protection.

A tariff constructed of fixed charges and credits, in other words, a tariff in which the principle of relativity is not recognized must, of necessity, be an unstable compound of unrelated parts. It cannot be expected to serve its purpose for any length of time because every important change in loss ratios, which are always changing, necessitates its reconstruction or abandonment through a percentage advance or reduction which, applied as it is, to rates out of relation to each other breeds trouble.

A tariff built upon the corner stone of relativity, when once established, becomes an organic whole—an instrumentality of logically related parts which no future exigencies of the business need ever disturb. It becomes a permanent instrument for measuring hazard, and while it is conceivable, even probable, that a new

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tariff so constructed may require a period of adjustment to develop consistency in all its parts, when this consistency has been finally established to conform to the best underwriting judgment, it becomes a finished structure—a permanent body of relations for the measurement of fire hazard. While it may become necessary from time to time to insert some new charge or credit to fit an innovation in hazard, aside from this necessity it is safe to assume that, once completed, it will be as unnecessary to rebuild a tariff so constructed as it is to rebuild the compass, chronometer or thermometer.

In the light of these facts, and the severe tests to which this system has been subjected, there is no reason to suspect that it will not continue to measure relative fire hazard satisfactorily for an unlimited period in the future, upon any desired basis, in any state, town or city and under all grades of municipal protection.

It further contains the quality of absolute flexibility—not the flexibility of fits and starts which jolts the rating machinery out of order and makes it necessary to lie up an indefinite period for reconstruction or repairs, with every important fluctuation in loss ratios, but a ready adaptability which permits of instant adjustment to existing conditions, either local or general. While permitting utter freedom of judgment in its adjustment to these conditions, the system possesses the novel and invaluable feature of recording accurately every departure from an established norm of relativity, which makes it possible to determine by comparison every inequality made necessary by the exigencies of the business, and reveals with precision what is necessary to restore a proper relativity.

No claim is made that it is a finality, but any tariff possessing these qualities and potentialities may well be excused for minor faults. The principles upon which it is built are enduring and the results of its use in actual rating justify the assertion that it has safely passed the ordeal of experimentation as a practical working tariff.

When these principles come to be better understood, they cannot fail to win general approval and there is no reason to doubt that underwriting intelligence will then join in perfecting the system to a point where, through the sheer force of its reasonableness, all concerned will be compelled to rely upon its measurements of fire hazard with the same faith they repose in other universally accepted systems of measurement.

In closing, it is proper to add that the tariff *does not embrace fire proof buildings and contents* which contain a distinct body of relations entitled to independent treatment.



# **BRICK TARIFF**

**EMBRACING**

**BRICK AND STONE, METAL AND SHINGLE ROOF  
BUILDINGS AND THEIR CONTENTS.**

# STANDARD STRUCTURAL FEATURES.

*For buildings with brick or stone walls.*

NOTE: Where the "standard" is not defined, the National Board Standard should govern.

In the following analysis, buildings are classed as

1. **Hallway Construction**, *i. e.*, buildings in which all openings between stories are in separate hallways.

2. **Ordinary Construction**, *i. e.*, buildings in which openings between stories, in whole or in part, are not situated in separate hallways, as above.

The standard for structural features of a building is determined as to *walls, floorways and area*, by occupancy, which is divided into **Light** and **Ordinary**. All occupancies not mentioned in the following list of Light Occupancies are to be treated as Ordinary Occupancies.

## List of Light Occupancies.

1. Agent's Sample Rooms.
2. Banks.
3. Barber Shops.
4. Churches.
5. Cobblers.
6. Dwellings, Flats or guest rooms of Hotels, Clubs or Lodging Houses.
7. Halls, including dance, lodge and private club halls or rooms.
8. Offices, business, professional, railway, insurance, telegraph, telephone exchange, detective, architects, etc., (including private libraries or small private printing offices connected therewith).
9. Parlors, millinery, dressmaking, massage, etc., (not over 10 hands).
10. Schools.
11. Stands, news, tobacco, fruit, flower, railway-ticket, etc.
12. Studios, teachers, artists, class rooms, etc.
13. Tailors (no stocks, not over 10 hands).
14. Sleeping rooms of proprietor or clerks.
15. Also small stocks not exceeding 600 sq. ft. area, for which charge in column 1 of Alphabetical List is 5% or under.

NOTE: When more than 3 occupancies described under items 9 and (or) 13, with over 5 hands, and (or) under item 15 are found on same floor, these occupancies are to be treated as Ordinary Occupancies.

**The following standards apply to all buildings, whether occupancy is Light or Ordinary:**

**Ground floor area** not over 1,000 square feet.

**Roof:** Gravel, slag, metal, tile, slate, or composition approved by Underwriters' Laboratories, Inc.

**Attachments** (Exterior): Building to be free from wooden cornices, awnings, porches, stairways, monitors, bridges or frame additions.

**Ceilings:** Ordinary lath and plaster, or metal, on joists of usual dimensions and arrangement.

**Skylights:** Frames to be of iron or steel with approved wired glass not less than one-quarter inch thick, or quarter-inch thick glass, protected by wire netting No. 12 B. and S. gauge, one inch mesh, preferably galvanized, set not less than six inches above glass on iron supports, approved arrangement. In towns of grades 4, 4½, 5 and 6 wire netting may be waived for skylights less than 40 square feet.

**Chimneys and Flues:** To be of brick from ground, or ledged in walls of approved construction, and otherwise standard.

**Partitions** between ground floor and (or) basement occupancies, to be brick, tile or plaster on both sides of expanded metal on iron supports (partition to be not less than two inches thick), or other equally fire-resisting materials.

**Parapets:** To be coped with stone, tile, cement or terra cotta; thickness 12 inches. (If parapet exceeds thickness of wall of upper story, no credit to be allowed for the excess.) Height 36 inches on buildings of four stories or over, and 18 inches on buildings of three stories or under. Openings for drainage through parapet, if any, not to exceed 4 x 8 inches, nor more than one opening to each 25 feet.

Where frame or ironclad roof houses or extensions are exposed, a **Fender Wall** on exposed sides, of same thickness as parapet should extend not less than 18 inches above and not less than 36 inches beyond sides or ends of the roof extension.

**Fire Doors and Shutters and Wired-glass windows** to be standard.

Standard wired-glass windows to be treated as equivalent to standard fire shutters.

(Approved fire doors or shutters are those that do not meet the requirements of above standard, but in the judgment of the rater constitute an adequate cut-off in view of the character or distance of exposure. For interior openings, only standard doors should be treated as approved.)

**A standard Fire Wall** (brick or stone) to be of standard thickness with standard parapet. Communicating openings, if any, to be protected by standard fire doors; exposed exterior openings by standard fire shutters or wired-glass windows.

**STANDARD WALLS.**

*The following standards for Walls, Floorways and Floorway Retinues are established by occupancy (light or ordinary), as defined, p. 19.*

**NOTE:** With reference to thickness of walls a building must be treated as one or the other, i. e., as either wholly Light or wholly Ordinary occupancy construction. If all occupancies above grade floor are Light, wall thickness should be figured for light occupancy, and, if not, the walls must conform to ordinary occupancy standard (see note concerning hotels, page 14).

**Wall Thickness:** To be established as follows:

- a. For outside walls of light occupancy buildings, both supporting and non-supporting, and for outside non-supporting walls of ordinary occupancy, the following standard applies (see light-faced figures in table below): Wall to be 12 inches thick for 2 upper stories, increasing 4 inches for each 2 stories below. Limit 24 inches.
- b. For non-supporting party or division walls of buildings of both light and ordinary occupancy, and for outside supporting walls of ordinary occupancy, the following standard applies (see heavy-faced figures in table below): Wall of upper story to be 12 inches thick, increasing 4 inches for each 2 stories below. Limit 28 inches.  
**NOTE:** When building is 5 stories or over, thickness of top story as specified under b should be 16 inches instead of 12 inches.
- c. For all supporting party or division walls of buildings of both light and ordinary occupancy, figure as per b and in addition charge for lack of ledges. See paragraph a, page 12.

**BRICK WALLS.**

	STORIES.								Av'g.
	1	2	3	4	5	6	7	8	
One story.....		12							12
		<b>12</b>							<b>12</b>
Two stories.....		12	12						12
		<b>16</b>	<b>12</b>						<b>14</b>
Three stories.....		16	12	12					13
		<b>16</b>	<b>16</b>	<b>12</b>					<b>15</b>
Four stories.....		16	16	12	12				14
		<b>20</b>	<b>16</b>	<b>16</b>	<b>12</b>				<b>16</b>
Five stories.....		20	16	16	12	12			15
		<b>20</b>	<b>20</b>	<b>16</b>	<b>16</b>	<b>16</b>			<b>18</b>
Six stories.....		20	20	16	16	12	12		16
		<b>24</b>	<b>20</b>	<b>20</b>	<b>16</b>	<b>16</b>	<b>16</b>		<b>19</b>
Seven stories.....		24	20	20	16	16	12	12	17
		<b>24</b>	<b>24</b>	<b>20</b>	<b>20</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>19</b>
Eight stories.....		24	24	20	20	16	16	12	18
		<b>28</b>	<b>24</b>	<b>24</b>	<b>20</b>	<b>20</b>	<b>16</b>	<b>16</b>	<b>20</b>

NOTES :

- a. *Ledges:* All supporting party or division walls should be provided with not less than four inch ledge or corbel on each side and on each story including roof, where wall is less than 20 inches thick.
- b. *Stone Walls* to be four inches thicker than brick.
- c. When outside wall is of *pier construction* the piers should be 4 inches thicker than the average shown by above table, the faces of piers to measure not less than one-fourth as much as the spaces between centres; walls between piers to be not less than 12 inches thick.
- d. Deficiency in thickness of piers or wall between piers to be charged as for other supporting walls.
- e. When walls other than pier construction are braced by *pilasters*, if the wall itself between pilasters is used for floor support, charge for deficiency in thickness of wall may be reduced one-half.

**STANDARD FLOORWAYS.**

(*Embracing flooring, joists, ceiling and supports beneath*) grade as follows:

With reference to floorways and their retinues, each story should be figured separately, the occupancy of each floor determining the charge or credit according as the occupancy is Light or Ordinary.

- A. Matched wooden flooring laid on joists of ordinary dimensions with lath and plaster, wood or metal ceiling beneath.
- B. Same as A. Two layers of matched flooring.
- C. Floorways not less than the following:
  1. Floors, three inches thick if adequate for their load.
  2. Floorway supports, consisting of posts, beams and girders, 6x6 inches, if adequate for their load. If cast-iron or steel, to be protected by 2 inches of terra-cotta, concrete or its equivalent. No strap-iron stirrups to be used.
  3. Finish without concealed spaces.
  4. Partitions, non-combustible.
- D. Floorways not less than the following:
  1. Floors three-inch splined plank covered with one-inch dressed flooring.
  2. Floorway supports, consisting of posts, beams and girders, 8x8 inches if adequate for their load. If cast-iron or steel, to be protected by 2 inches of terra-cotta, concrete or its equivalent. No strap iron stirrups to be used. Beams to rest on wall ledges, or, if entering walls, to be self-releasing. Posts or pillars to be superimposed throughout all stories with ends connected by approved cast-iron caps (self-releasing as regards floor beams) with cast-iron base plates and pintles.
  3. Finish without concealed spaces.
  4. Partitions non-combustible.

**STANDARD FLOORWAY RETINUES.**

NOTE: The openings of each floorway will for convenience be referred to as its *Retinue*. The grade of each retinue is that of its weakest factor. If, for example, one factor of a retinue grades as *a*, and another as *b*, the retinue should grade as *a*.

Rater should seek the opening with lowest grade of protection and grade the retinue of each floorway accordingly.

**Dumb Waiters or Ventilating Shafts** to be provided with automatic doors at each opening, those opening vertically to conform to requirements for hatchways, which see. These openings grade as follows:

- (a.) Lath and plaster or single thickness of ordinary matched flooring, with doors of matched flooring.
- (b.) Two thicknesses of  $\frac{7}{8}$  inch, or single thickness  $1\frac{1}{2}$  inch matched flooring. Doors same.
- (c.) Plaster on both sides of expanded metal not less than 2 inches thick, supported by iron frame, or 6 inch hollow tile. Doors standard, 2 inch tin-clad, or No. 14 U. S. gauge iron.

**Chutes** to be provided with automatic doors at each opening, those opening vertically to conform to requirements for hatchways, which see. These openings grade as follows:

- (a.) Single thickness of ordinary matched flooring, metal lined, with doors of same material.

- (b.) Two thicknesses of  $\frac{3}{8}$  inch, or single thickness of  $1\frac{1}{2}$  inch matched flooring, metal lined, with doors of same material.
- (c.) Single thickness of boiler iron properly riveted and framed, with doors of same material.

**Well Holes or Light Shafts** to be protected as follows:

- (a.) By deck or prism glass in metal frames, or in lieu, automatic hatch closers as required for "a" hatchways.
- (b.) By deck or prism glass in metal frames, or in lieu, automatic hatch closers as required for "b" hatchways.
- (c.) Wired glass in metal frames (approved) or in lieu, automatic hatch closers as required for "c" hatchways.

**Open Elevators, Hatchways and Stairways** to be protected at each floorway by an automatic trap door as follows:

- (a.) Of  $\frac{3}{8}$  inch kiln-dried matched pine or other non-resinous wood, free from unsound knots and sap; to be securely nailed to battens with No. 13 gauge flat head, full barbed wire nails, 2 inches long, driven in flush and clinched, so as to leave a smooth surface on both sides. Battens to be  $\frac{3}{8}$  inch thick, not less than 6 inches wide, and not more than 3 feet on centers. Traps to be covered on under side with tin sheets 14x20 inches, not less than 107 pounds to the box of 112 sheets, all joints single locked; covering to lap top side of trap not less than 4 inches and nail heads not to be exposed except where covering laps on top side. Traps to lap openings at least 3 inches. Hinges to be substantial wrought iron of "T" or strap type with non-corrosive pin, securely bolted to trap and if possible bolted to floor.
- (b.) Same as (a) in all respects except that trap is to be made of two thicknesses of  $\frac{3}{8}$  inch, or single thickness of  $1\frac{1}{2}$  inch matched pine or other non-resinous wood, with boards laid at right angles.
- (c.) Two thicknesses of  $\frac{3}{8}$  inch, otherwise same as (b), except that traps are to be without battens and entirely covered with tin, as required for standard fire doors.

**NOTE:** All traps to close automatically by fusible link or electric attachments, so arranged that all traps on one shaft will be operated by the fusing of any one link or thermostat. All wires, chains and pulleys to be protected if necessary against mechanical injury by substantial guard strips, or from being rendered inoperative by piling stock or other material against same. All weights to be boxed in if outside of shaft and so arranged that one side of boxing can easily be removed for accessibility. Traps to be provided with automatic flaps for covering all cable, guide and counterweight openings when same are closed; a spring must be put on the back of all flaps for closing same when the traps are released.

**Enclosed Elevators and Stairways** (not in hallways communicating with street) are graded according to their enclosures as follows:

(Glass, if any, in door to be approved wired glass in stationary or approved automatic closing iron frame.)

- (a.) *Enclosure* of ordinary lath and plaster, or matched flooring. *Door* of matched flooring and self-closing or automatic. (See note below.)
- (b.) *Enclosure* of two thicknesses of  $\frac{3}{8}$  inch, or single thickness of  $1\frac{1}{2}$  inch matched flooring. *Door* same and self-closing or automatic.

**NOTE:** Wooden enclosures are valid only for stairways. Elevators with enclosures (a) and (b) should also have a trap-door at each floorway and be graded by the trap-door instead of by above enclosures (see Open Elevators, page 13.) If no trap-door, they should take the "below a" grade.

- (c.) *Enclosure* of six inch hollow tile, or plaster on both sides of expanded metal, 2 inches thick, supported by iron frame. *Doors* (for elevators automatic, and for stairways automatic or self-closing), either standard 2 inch tin-clad, or standard No. 14 U. S. gauge iron, or other elevator doors approved by Underwriters' Laboratories, Inc.

NOTE 1: If enclosure is a shaft, frame work to be self-supporting and continuous from lowest story to same height as standard parapet above roof. Wooden sills to be protected at edge of floor opening in elevator shaft by 4x6,  $\frac{1}{8}$  inch angle iron, the long side to be securely bolted to inside of shaft and the short leg screwed to the floor.

NOTE 2: Elevator doors as above, closed inside by elevator operator *may* be accepted in lieu of automatic doors.

- (d.) *Enclosure*; brick shaft with standard self-closing fire doors, ventilation and drainage, as required for mill construction.

**Roof Spaces or Cock Lofts**, whether in hallway or in main building, if communicating with floors below should be cut off by solidly closing same with matched flooring, or by traps to conform to requirements for hatchways, or by enclosure to conform to requirements for enclosed stairways.

#### **(Buildings with Hallways.)**

In these buildings, floorways and their retinues should grade the same as with buildings of ordinary occupancy construction and the proper charge or credit applied for opening with lowest grade of enclosure regardless of whether the opening is in main building or hallway.

Floorway openings in halls, however, may be protected by the partitions separating the hallways from main buildings as well as by enclosures to openings. When this is the case, *partitions* may be treated as retinues and graded as follows:

(Glass, if any, in partitions or doors to be approved wired glass in stationary or approved automatic closing iron frame.)

1. Six inch hollow tile or plaster on both sides of expanded metal, two inches thick, supported by iron frame or other equally fire resisting materials, with standard two inch tin-clad fire, or No. 14 U. S. gauge iron self-closing or automatic doors, grade as equivalent to floorway retinue b.

2. Hollow tile, or plaster on expanded metal, with doors of two thicknesses of  $\frac{3}{8}$  inch, or single thickness of  $1\frac{1}{2}$  inch matched flooring and self-closing or automatic, grade as equivalent to floorway retinue a.

3. Ordinary wooden lath and plaster, with wooden doors, grade as equivalent to floorway retinue "below a," except that a wood lath and plaster partition, with self-closing door of matched flooring from hallway to main room of first story may be treated as equivalent to floorway retinue a for that story.

When partitions and openings in floorway are not of like grade, the charge or credit applied from Retinue Table (page 22) should be for the better grade.

NOTE: a. When retinue consists of hallway partitions, it should be figured for same story as occupancy, but other floorway retinues should be figured for the floorway (*or if top story, for ceiling*) above contents of each story.

b. When a story contains exclusively Light Occupancies, its retinue, if consisting of hallway partitions, as above, may be counted as one grade higher, i. e., if "below a" as a, if a as b, or if b as c. Open cocklofts in hallways, however, should be treated as if in main building (see note after Retinue Table, page 23).

NOTE: Well holes, light shafts or courts (not open to the sky) if 300 square feet or more in area and 10 feet or more both dimensions, when found in hallways should be treated as if in main building.

c. **Hotels, Apartment or Lodging Houses and City Club Houses.** Figure walls as for light occupancy for entire building and floorways and their retinues as for ordinary occupancy.

## DIRECTIONS FOR BRICK TARIFF

*NOTE: When not otherwise specified, all charges and credits are percentages of Basis Rate.*

### (To Rate Buildings of Single Occupancy.)

Enter on rating slip the basis rate and all charges and credits connected with building and stationary power (if any). See Appendix, page 17.

Next refer to Alphabetical List of Occupancies and enter the charges for occupancy found in columns 1 and 2. The difference between the total of the debit and credit columns in rating sheet will show the percentage of basis rate to be added to it in order to obtain the occupied rate of building, which should then be reduced by credits, if any, for structural features, found in Table of Credits (page 86), and the resulting figure further reduced by credits, if any, for protective features, found on same page.

To rate contents of single occupancy buildings, refer to Contents Tables, and add to the occupied building rate the amount indicated by the insignia (D. 1, 1½, 2, etc., as the case may be) according to the grade of protection and location of contents in building.

### (To Rate Buildings of More Than One Occupancy.)

Enter on rating slip the basis rate and all charges and credits connected with building and stationary power, if any.

Then refer to Alphabetical List of Occupancies and find the total of charges connected with all occupancies in column 1, adding this total to the highest charge connected with any occupancy in column 2. Enter the total in debit column of rating sheet. Foot up the two columns and the difference between the totals will show the percentage to be added to the basis rate to obtain occupied rate of building.

To rate contents of multiple occupancy buildings, add to the occupied building rate for each occupancy as indicated by its insignia in column 3. See Contents Tables.

### External Exposures.

For rules in regard to external exposures consult Exposure Formulas.

## BASIS RATES.

The following basis rates are computed from the standard of a one-story "B" building in an unprotected town. The tables range from 60 cents to \$1.10 per \$100, as indicated by the heavy figures over each table. For example, table No. 60 is computed upon the basis of 60 cents.

A similar series of tabulations for Contents appears, pages 88 to 95 and when adapting the system to a new state it should first be tested by trying the different basis rate and contents tables until the desired level of rates has been found, when the tables selected may be used for the entire state.

1. When parts of the same building have not the same number of stories, use the basis rate of the highest part.

2. If building has sub-basements, increase basis rate for each basement below the first by same amount that is deducted in following tables for no basement.

3. The number of stories in a building is determined by the number of floors and not by the height of the building.

### 60

#### PROTECTION.

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.33	\$0.37	\$0.42	\$0.47	\$0.52	\$0.57	\$0.60
2 stories.....	.34	.39	.44	.49	.54	.59	.63
3    ".....	.36	.40	.46	.52	.57	.62	.66
4    ".....	.38	.43	.49	.55	.61	.66	.70
5    ".....	.41	.47	.53				
6    ".....	.46						
Increase for each add'l story.....	.07	.07	.07	.07	.07	.07	.07
Decrease if no basem'nt	.02	.02	.02	.02	.03	.03	.03

### 65

#### PROTECTION.

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.35	\$0.40	\$0.45	\$0.51	\$0.56	\$0.61	\$0.65
2 stories.....	.37	.42	.47	.53	.59	.64	.68
3    ".....	.39	.44	.50	.56	.62	.67	.72
4    ".....	.41	.47	.53	.60	.66	.72	.76
5    ".....	.45	.51	.57				
6    ".....	.49						
Increase for each add'l story.....	.08	.08	.08	.08	.08	.08	.08
Decrease if no basem'nt	.02	.02	.02	.03	.03	.03	.03

## 70

P R O T E C T I O N .

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.38	\$0.43	\$0.49	\$0.55	\$0.60	\$0.66	\$0.70
2 stories.....	.40	.45	.51	.58	.63	.69	.74
3 " "	.42	.47	.53	.60	.66	.73	.77
4 " "	.44	.50	.57	.64	.71	.77	.82
5 " "	.48	.55	.62				
6 " "	.53						
Increase for each add'l story.....	.09	.09	.09	.09	.09	.09	.09
Decrease if no basem'nt	.02	.02	.02	.03	.03	.03	.04

## 75

P R O T E C T I O N .

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.41	\$0.46	\$0.52	\$0.59	\$0.65	\$0.71	\$0.75
2 stories.....	.43	.48	.55	.62	.68	.74	.79
3 " "	.45	.51	.57	.65	.71	.78	.83
4 " "	.48	.54	.61	.69	.76	.83	.88
5 " "	.52	.59	.66				
6 " "	.57						
Increase for each add'l story.....	.09	.09	.09	.09	.09	.09	.09
Decrease if no basem'nt	.02	.02	.03	.03	.03	.04	.04

## 80

P R O T E C T I O N .

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.43	\$0.49	\$0.55	\$0.63	\$0.69	\$0.75	\$0.80
2 stories.....	.46	.52	.58	.66	.73	.79	.84
3 " "	.48	.54	.61	.69	.76	.83	.88
4 " "	.51	.57	.65	.73	.81	.88	.94
5 " "	.55	.62	.71				
6 " "	.61						
Increase for each add'l story.....	.10	.10	.10	.10	.10	.10	.10
Decrease if no basem'nt	.02	.03	.03	.03	.04	.04	.04

**85**

P R O T E C T I O N .

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.46	\$0.52	\$0.59	\$0.67	\$0.73	\$0.80	\$0.85
2 stories.....	.48	.55	.62	.70	.77	.84	.89
3 " "	.51	.57	.65	.73	.81	.88	.94
4 " "	.54	.61	.69	.78	.86	.94	1.00
5 " "	.59	.66	.75				
6 " "	.65						
Increase for each add'l story.....	.10	.10	.10	.10	.10	.10	.10
Decrease if no basem'nt	.02	.03	.03	.03	.04	.04	.04

**90**

P R O T E C T I O N .

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.49	\$0.55	\$0.62	\$0.71	\$0.78	\$0.85	\$0.90
2 stories.....	.51	.58	.66	.74	.82	.89	.95
3 " "	.54	.61	.69	.78	.85	.93	.99
4 " "	.57	.65	.73	.82	.91	.99	1.05
5 " "	.62	.70	.79				
6 " "	.68						
Increase for each add'l story.....	.11	.11	.11	.11	.11	.11	.11
Decrease if no basem'nt	.02	.03	.03	.04	.04	.04	.05

**95**

P R O T E C T I O N .

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.52	\$0.58	\$0.66	\$0.74	\$0.82	\$0.90	\$0.95
2 stories.....	.54	.61	.69	.78	.86	.94	1.00
3 " "	.57	.64	.72	.82	.90	.99	1.05
4 " "	.60	.68	.77	.87	.96	1.05	1.11
5 " "	.66	.74	.84				
6 " "	.72						
Increase for each add'l story.....	.11	.11	.11	.11	.11	.11	.11
Decrease if no basem'nt	.03	.03	.03	.04	.04	.05	.05

# 100

## PROTECTION.

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.54	\$0.61	\$0.69	\$0.78	\$0.86	\$0.94	\$1.00
2 stories.....	.57	.64	.73	.82	.91	.99	1.05
3 " "	.60	.67	.76	.86	.95	1.04	1.10
4 " "	.63	.72	.81	.92	1.01	1.10	1.17
5 " "	.69	.78	.88				
6 " "	.76						
Increase for each add'l story.....	.12	.12	.12	.12	.12	.12	.12
Decrease if no basem'nt	.03	.03	.04	.04	.04	.05	.05

# 110

## PROTECTION.

HEIGHT.	Class 1	Class 2	Class 3	Class 4	Class 4½	Class 5	Class 6
1 story.....	\$0.60	\$0.67	\$0.76	\$0.86	\$0.95	\$1.04	\$1.10
2 stories.....	.63	.71	.80	.90	1.00	1.09	1.16
3 " "	.66	.74	.84	.95	1.04	1.14	1.21
4 " "	.70	.79	.89	1.01	1.11	1.21	1.29
5 " "	.76	.86	.97				
6 " "	.84						
Increase for each add'l story.....	.13	.13	.13	.13	.13	.13	.13
Decrease if no basem'nt	.03	.03	.04	.04	.05	.05	.06

## CHARGES AND CREDITS.

All charges and credits to be percentages of basis rate unless otherwise stated.

### 1. TABLE OF AREA CHARGES.

- a. Area charge should be applied to all buildings.
- b. When the ground floor area exceeds the limits of the following table, the proper charge may be found from multiples of the areas provided, or by adding the charges of two or more areas. Either method will produce substantially the same result.
- c. When parts of a building differ in the number of floors, take the sum of the charges for each section, according to its area and number of floors. This charge is a percentage of the basis rate of the part containing the greatest number of stories.
- d. If building with brick or stone walls has a frame-mansard, shingle roof or composition roof not approved by the Underwriters' Laboratories, Inc., increase area charge one-fourth.
- e. Basement and sub-basements should not be counted as floors unless occupied for active business purposes, or by hotel, apartment, lodging, or club house, for cooking, dining, laundering, storage or the generation of power, heat or light.
- f. Count floors exclusively occupied by Light Occupancies as half floors. (See List of Light Occupancies, page 10.) This also applies to floors exclusively occupied as guest rooms in Hotels, City Club Houses and Lodging Houses.
- g. When a "B" building has a frame, iron-clad or brick-veneered ware room or addition (see Ware Rooms, page 24.)

Square feet of ground floor area.	One Floor	Two Floors	Three Floors	Four Floors	Five Floors	Six Floors	Seven Floors	Eight Floors	Nine Floors
1 m	...	2%	3%	3%	4%	4%	5%	5%	5%
2 m	2%	4%	5%	7%	8%	9%	9%	9%	10%
3 m	3%	6%	8%	10%	12%	13%	14%	14%	15%
4 m	4%	8%	11%	14%	16%	17%	18%	19%	20%
5 m	5%	10%	14%	17%	20%	22%	23%	24%	25%
6 m	6%	11%	16%	20%	23%	26%	27%	28%	29%
7 m	7%	13%	19%	24%	27%	30%	32%	33%	34%
8 m	8%	15%	22%	27%	31%	34%	36%	38%	39%
9 m	9%	17%	24%	31%	35%	39%	41%	42%	44%
10 m	10%	19%	27%	34%	39%	43%	45%	47%	49%
11 m	11%	21%	30%	37%	43%	47%	50%	52%	54%
12 m	12%	23%	32%	41%	47%	52%	54%	56%	59%
13 m	13%	25%	35%	44%	51%	56%	59%	61%	64%
14 m	14%	27%	38%	48%	55%	60%	63%	66%	69%
15 m	15%	29%	41%	51%	59%	65%	68%	71%	74%
16 m	16%	30%	43%	54%	62%	69%	72%	75%	78%
17 m	17%	32%	46%	58%	66%	73%	77%	80%	83%
18 m	18%	34%	49%	61%	70%	77%	81%	85%	88%
19 m	19%	36%	51%	65%	74%	82%	86%	89%	93%
20 m	20%	38%	54%	68%	78%	86%	90%	94%	98%

When area is between any two figures in this column select the nearer of the two. When exactly half way between take the average of the two.

### Division Walls.

- h. When a division wall to or through roof has unprotected openings, diminish area charge one-tenth for each wall, not exceeding in all 30% of the charge.
- j. When division walls to roof only are without openings, area charge may be reduced one-fifth for each wall, not exceeding in all 40% of the charge.
- k. When both h and j, maximum reduction should not exceed 40% of area charge.

- l. When building is more than one story high and partitions between ground floor and basement occupancies are standard, and all other partitions wire lath and plaster, area charge may be reduced one-fifth.
- m. When a division or party wall has protected openings, see Communicating Occupancies in Exposure Formulas, page 26.

## 2. WALLS.

- 2a. For each inch deficiency in average thickness, for each wall .....

(Not cumulative with 2e, f, g and h.)

NOTE: When a *B* building adjoining another *B* building has no wall, but is built up against the facing wall of adjoining building, charge for each inch deficiency of average thickness from a standard independent wall, and charge adjoining building with deficit, if any, from the average thickness of a standard party wall.

- 2b. **Ledges.** 1. For absence of 4-inch ledges or corbels at all floors, including roof, on supporting party or division wall, where wall is less than 20 inches thick, for each wall .....
2. For absence of 4-inch ledges or corbels at roof only on supporting party or division wall, where wall is less than 20 inches thick, for each wall.....

Add 3%

(Not cumulative with 1.)

NOTE: Double charge 1 or 2 when deficiency applies to both sides of wall.

- 2c. **Parapets or Fender Walls** (each) not standard:

1. If less than standard thickness, and (or) not properly coped .....
2. If deficient one-third or less from standard height.....
3. If deficient over one-third from standard height.....

Charges for deficient parapet and (or) Fender Wall apply to all party walls and to buildings exposed within vanishing distance of ordinary exposure. (See buildings of unequal height, Exposure Formulas.)

When parapet is standard but Fender Wall is deficient, distance may be measured between exposure and roof house. Deficiencies in either height or lateral extension of Fender Wall to be measured the same as for parapet itself, but not to be treated as cumulative with parapet charge.

- 2d. **Foundations.** If wooden foundations or posts or pillars..Add 30%

### Front or Rear Walls.

(Double charge for 2e, f, g, h or k, if side walls.)

- 2e. If wood, for each wall.....Add 15%  
Increase charge one-third for each story over one.
- 2f. If iron-clad, for each wall.....Add 12%  
Increase charge one-third for each story over one.
- 2g. If brick-veneered, for each wall.....Add 9%  
Increase charge one-third for each story over one.
- 2h. If iron and glass, not backed up solidly with brick, for each wall .....

Increase charge 2% for each additional story of iron or glass, or 1% for each story with brick walls resting on unprotected iron columns.

When a wall is supported by iron columns with brick supports less than 25 feet apart, charge 2h may be waived, except when wall is iron and glass above first story.

- 2i. If building is free from iron and glass and (or) plate glass windows of unusually large dimensions.....Deduct 3%
- 2k. If hollow-cement-block or tile, for each wall.....Add 3%  
Increase charge one-third for each story over one.  
(Cumulative with 2a.)
- 2l. Bay windows with wooden frames, for each wall.....Add 3%  
Increase charge 2% for each story over one with bay windows continuous with bay windows of another story. Charge not cumulative with 2e, f, g or h, if same wall.

### 3. ROOF.

- 3a. If shingle or composition not approved by the Underwriters' Laboratories, Inc..... Add 20%  
3b. If wooden mansard, one side..... Add 10%  
Increase charge one-half for each additional side. If mansard is slate or metal-clad reduce total charge one-half.

The charge for mansard is not cumulative with 10a, b, c or d—if both are on same side of building, charge for mansard only.

NOTE: If building has a frame mansard, shingle or composition roof not approved by the Underwriters' Laboratories, Inc., increase area charge one-fourth.

### 4. CEILINGS.

- 4a. Wooden sheathed ceilings or walls, for each story..... Add 2%  
(If both ceilings and walls are so sheathed, increase charge one-half.)  
4b. Strawboard, Paper or Canvas sheathed ceilings or walls, for each story ..... Add 10%  
(If both ceilings and walls are so sheathed, increase charge one-half.)

### 5. OPENINGS THROUGH ROOF.

- 5a. Skylights (not standard).  
For largest or worst opening of 40 sq. ft. or less.... Add 3%  
Increase charge for each additional 40 sq. ft. or greater part thereof..... 1%  
(Not cumulative with 5b.)  
For each additional skylight..... Add 2%  
(Maximum skylight charge, 25%).  
5b. Photographer's Skylights in roof and side wall..... Add 5%  
Increase charge for each additional 40 sq. ft. or greater part thereof..... 1%  
(Maximum charge, 25%).  
5c. Roof Space or Cockloft, if communicating with floors below, through open hatchway, air or elevator shaft, see item 4 after Floorway Retinue Table.

### 6. INTERIOR WELL HOLES, LIGHT SHAFTS AND COURTS. (Open to the Sky.)

- 6a. If 300 square feet or more in area and 10 feet or more both dimensions, interior walls should be charged under wall deficiencies as for one non-supporting front or rear wall (see wall charges page 21).  
6b. If less than 300 square feet in area or less than 10 feet either dimension, treat as if roofed over and charge for lack of standard skylight at roof, and for retinue when not opening into hallways of light occupancy buildings. Skylight charge may be waived when interior walls are brick, stone, concrete or tile.

NOTE: When located outside of building, charge for wall deficiency, and in addition, if less than 300 square feet in area or less than 10 feet either dimension and if enclosed on all sides, charge for retinue when not opening into hallways of light occupancy buildings.

### 7. FLOORWAY RETINUE TABLE.

NOTE: In the following table the sign (+) indicates a charge and the sign (—) a credit. The retinue of each floorway should be established by the opening with the lowest grade of closure.

EACH FLOORWAY	D	C	B	A
With retinue d.....	—4%	—3%	—1%	0
With retinue c.....	—2%	—2%	—1%	0
With retinue b.....	—1%	—1%	—1%	0
With retinue a.....	—0%	—0%	—0%	0
With retinue below a.....	+5%	+5%	+5%	+5%
For each "below a" opening over one up to double the charge.....	+1%	+1%	+1%	+1%

1. If any double floorway with *d* retinue, has two thicknesses of approved waterproof material between floors, flashed three inches at the walls and around all columns and openings with moulding or mopboard, and (or) is properly drained and scuppered, increase credits in above table one point.
2. If any floorway is finished with concealed spaces, reduce credits in above table one point.
3. The retinue of each story should be figured for the floorway above occupancy instead of the floorway which supports it, excepting hallway partitions, which should be figured for the same story.
4. Openings into a cockloft or roof space should be treated as floorway openings of same grade, whether in hallway or main building.
5. When ground floor of a building without basement is non-combustible, see Structural Credits at end of Alphabetical List.

#### **8. PARTITIONS AND GALLERIES OR DECKS.**

- 8a. *Wood lath-and-plaster, or wooden partition, between ground floor or basement occupancies, for each.....Add 3%*  
NOTE: If all partitions are non-combustible, see item 7.  
page 21.
- 8b. *Galleries or decks used for storage of goods, if in excess of 200 square feet, for each 200 square feet or greater part thereof of excess, counting area of all galleries and decks .....Add 3%*  
(Maximum charge 30%).

#### **9. CHIMNEYS, FLUES AND STOVEPIPES.**

- (Increase charges 9a to 9d inclusive, one-fifth for each additional flue or stovepipe, up to double the charge.)
- 9a. *If brick or stone chimneys rest on floors, beams, wooden brackets or joists, or are otherwise below standard..Add 5%*  
9b. *If cement, less than 4 inches thick, tile or terra cotta....Add 20%*  
(If resting on floors, beams, wooden brackets or joists,  
increase charge 5 points.)  
9c. *If brick on edge.....Add 30%*  
(If resting on floors, beams, wooden brackets or joists,  
increase charge 5 points.)  
9d. *If stovepipes pass through roof or windows (safely ar- ranged) .....Add 15%*  
9e. *If stovepipes pass through floors, wood lath and plaster or wooden partitions (safely arranged).....Add 5%*  
NOTE 1: Increase charge 9e one-fifth for each additional  
stovepipe and one-fifth for each floor or partition  
pierced, up to double the charge.  
NOTE 2: If through ceiling into cockloft, roof space, closet  
or any concealed space, double charges 9b, 9c and 9d.

#### **10. EXTERIOR ATTACHMENTS.**

NOTE 1: Charges 10a to 10f, inclusive, 10h, n and p should be made only when attachment is exposed within 40 feet by frame, iron-clad or brick-veneered buildings or within 20 feet by brick buildings.

NOTE 2: Attachments covered by charges not listed in Note 1, and unusually large attachments of any kind should be charged for regardless of exposure.

NOTE 3: Charges for exterior attachments are cumulative with exposure charges, if any. Where attachment is enclosed, distance should be figured to attachment. Where attachment is open distance should be figured to main building. Exposure charges should not be made to monitors or roof-houses of ordinary dimensions.

NOTE 4: Charges 10a, b, c and d not cumulative with charge for shingle roof, nor with 2e or 2f if same wall.

NOTE 5: When 10b and 10d are continuous with buildings on 2 sides, increase charge one-half.

- 10a. Cornice (wood) *cut off* from own building and *not continuous* with adjoining building.....Add 2%  
10b. Cornice (wood) *cut off* from own building, but *continuous* with adjoining building.....Add 5%  
10c. Cornice (wood) *not cut off* from own building and *not continuous* with adjoining building.....Add 5%  
10d. Cornice (wood or hollow metal) *not cut off* from own building, and *continuous* with adjoining building.....Add 10%  
The charge for hollow metal cornice should be waived unless continuous with cornice of adjoining building.  
10e. Awnings or porches (wood).....Add 3% to 5%  
10f. Back wooden sheds or porches with stairways (open) ....., Add 3% to 10%  
10g. Back wooden porches with stairways (enclosed) Add 5% to 10%  
10h. Outside stairways (wood) open.....Add 2%  
10j. Outside stairways (wood) boxed.....Add 5%  
10k. Bridges (wood) enclosed.....Add 5%  
10l. Bridges (wood, clad with iron) enclosed.....Add 4%  
10m. Bridges of skeleton ironclad, enclosed.....Add 2%  
When two buildings communicate through enclosed bridge without approved cut-off, treat as one building, waiving charges 10k, l and m, unless exposed by another building.  
10n. Bridges (wood) with roof and open sides.....Add 3%  
10p. Bridges (wood) without roof or sides.....Add 2%  
10q. Monitors or roof-houses (wood), large wooden display signs or wooden platforms on roof....Add 5% to 20%  
10r. Monitors or roof-houses (wood iron-clad).....Add 3% to 15%

NOTE: When monitor or roof-house has non-standard skylight in roof the regular skylight charge is cumulative with above charges. When monitor or roof-house has non-standard skylight in side .....Add 3% to 10%

Charges for skylights in monitor or roof-house are not cumulative with the maximum skylight charge.

## 11. WARE-ROOMS.

(Communicating.)

- 11a. Charge for ware-room or addition communicating (not cut off) with main building by a percentage charge of basis rate of main building determined by the percentage relation which the floor area of ware-room bears to the combined floor area of main building and ware-room excluding basement, if any. When main building and (or) ware-room exceed one story in height the ground floor area should be increased by one-third the area of each additional story. This percentage should be increased or decreased, according to the construction of main building and ware-room, by the following percentages of itself (not exceeding the maximum charge, and not less than the minimum charge):

Construction of Main Building.	Construction of Ware-room.	Amount of Increase or Decrease.	Maxi- mum Charge.	Mini- mum Charge.
Brick .....	{ Frame or iron-clad..... Brick-veneered..... Skeleton iron-clad..... Hollow-cement-block or tile..	Increase..60% Increase..40% Increase..20% Decrease..40%	70% 60% 50% 25%	10% 5% 5% 0%
Hollow- cement-block or tile.....	{ Frame, iron-clad or brick- veneered..... Skeleton iron-clad.....	Increase..20% No change	50% 40%	5% 5%

11b. Charge for roof of ware-room not approved (i. e., shingle or composition not approved by the Underwriters' Laboratories, Inc.), provided roof of main building is approved, by a percentage charge of basis rate of main building, determined by the percentage relation which the roof area of ware-room bears to the combined roof area of main building and ware-room. This percentage should be reduced one-half and should not exceed 20%.

NOTE 1: Area, floorway openings, skylights, occupancy, etc., of ware-room should be charged as if in main building.

NOTE 2: If area of ware-room as figured above is more than 50% of combined area of main building and ware-room, treat entire risk as frame, iron-clad, etc., as the case may be.

NOTE 3: When more than one ware-room communicates with a building, the combined area of all should be used in figuring above charges.

NOTE 4: All communicating ware-rooms take same rate as main building.

NOTE 5: When area of communicating ware-room is 25% or more of combined area of main building and ware-room, reduce contents differential by such per cent of  $\frac{2}{3}$  of itself as the area of ware-room is of the combined area, not exceeding one-half ware-room charge.

NOTE 6: When ware-room is detached or cut off, or exposes or is exposed by other buildings with or without ware-rooms, see Ware-rooms in Exposure Formulas.

## ALPHABETICAL LIST OF OCCUPANCIES

(BRICK TARIFF.)

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- a. All charges connected with occupancies not specifically stated in the following list, are to be made from Appendix.
- b. When the words Power, Heat, Labor, etc., appear, their meaning is to be taken as follows:

*Power*—Charge should be made from tables in Appendix.

*Heat*—This word indicates that charges should be made for all heat-producing and utilizing devices found with the risk, as provided for by tables in Appendix. The general word "Heat" is used when all of these devices are likely to be connected with the risk, but when only one is usually found, it will be named in lieu of "Heat," as "Forge," "Furnace," etc.

*NOTE*: The words "Power," "Heat," etc., are always accompanied by the classification, as to combustibility, to indicate the proper charge. For example, Power (C. 2) signifies that whatever the power device may be, the charge is to be made from the proper table in Appendix.

*Labor; Additional Labor*—See Note under Labor in Appendix.

- c. The sign † shows that the occupancy is not classifiable and that the charges are established by judgment instead of by classification in Appendix.
- d. The sign \* indicates that the occupancy it accompanies is subject to combustion so rapid that the value of fire department protection is materially less than for ordinary risks.

In rating these risks the basis rate should be increased by the following ratios and the total treated as a new basis rate, all charges being figured from this increased basis rate.

*Bricks.*

Under 1st Class Protection increase Basis Rate.....	30%
Under 2nd Class Protection increase Basis Rate.....	25%
Under 3rd Class Protection increase Basis Rate.....	20%
Under 4th Class Protection increase Basis Rate.....	15%
Under 4½ Class Protection increase Basis Rate.....	10%
Under 5th Class Protection use Basis Rate of 6th Class Town.	

- e. The sign double-dagger (‡) indicates that the occupancy it accompanies and auxiliary buildings, if any, connected with it, when found in single occupancy special hazards, should be rated by the special rules for the class.
- f. If repairs, auxiliary work, oils, gasoline, sodium peroxide, etc., see charges in Appendix.

ALPHABETICAL LIST.

- a. Combined stocks of one ownership consisting of two or more distinct stocks belonging to different classes, may be graded as to combustibility by the higher, and as to the damageability by the average shown by the charges for each class in Contents Tables. Where a stock is less than 20% of the value of the combined stock, its damageability may be treated as negligible. For mixed or nondescript stocks not in the following list nor classifiable in this way, see Classes C. 6 and D. 5 in Appendix.
- b. Machinery and fixtures, including heating and power devices, tools, etc., should take same rate as other contents of same occupancy, unless otherwise directed.
- c. Second-hand stocks. Where not specifically graded as to damageability use differential one-half grade higher than that for new stock of like character.
- d. For merchandise in safes or vaults, see page 25, Appendix.
- e. Consult After Charges, page 96, for remediable defects, faults of management, etc.

		1	2	3
100	<b>Academies</b> in Mercantile Buildings.....	10%	D2	
	b. Technical schools with apparatus.....	10%	D2 $\frac{1}{2}$	
	c. Manual Training with Woodwork.....	20%	D2 $\frac{1}{2}$	
101	<b>Advertising</b> Novelties, Stocks.....	10%	20%	D3
102	<b>Advertising</b> Novelties, Manufacturing. If paper, see Notions (paper). If leather, see Leather Sewing. If cloth, see Sewing Risks. If metal, see Machine Shops. If wood, see Woodworking. If celluloid used in small quantities in connection with any of the foregoing, in addition to regular charge for the occupancy. 50% (If celluloid goods manufactured, see Cel luloid.)			
103	<b>Agents'</b> Sample Rooms. (Class damageability by nature of samples.)			
104	<b>Agricultural</b> Implement Stocks.....	5%	10%	D2
	1. Labor (C. 2).			
	2. Forge, portable (see Appendix). If over 5 hands and (or) power woodworking, see Machine Shops, and (or) Wood working.			
105	<b>Aluminum</b> Goods.....	3%	5%	D1 $\frac{1}{2}$
106	<b>Aluminum</b> , in ingots or pigs (see Brass, Copper, Aluminum, Tin and Lead, in ingots or pigs).			
107	<b>Apartment</b> Houses (see Dwellings).			
108	<b>Apothecaries</b> (see Drug Stores).			
109	<b>Architects</b> and Designers (Offices of)..... (Manuscripts and Designs should class as D4.)			D3
110	<b>Armories</b> in Mercantile Buildings.....	10%	D2	
111	<b>Art</b> Stocks and Artists' Materials.....	5%	10%	D4
	1. Labor (C. 2).			
112	<b>Art</b> Studios (business), with Enlarging by hand.	5%	10%	D4
	1. Labor (C. 2). If enlarging by electric light, see Photographs (enlarging by electric light).			
113	<b>Artists'</b> Studios (professional). See Studios.			
114	<b>Artists</b> (wood carving) hand.....	10%	10%	D3
	1. Additional Labor (C. 2).			
115	<b>Artificial</b> Flowers. (See Feathers and Flowers.)			
116	<b>Artificial</b> Limbs. (See Deformity Apparatus.)			
117	<b>Asbestos</b> and Mineral Wool Stocks.....	3%	5%	D2
	1. Labor (C. 1).			
	2. Power (C. 1).			
118	<b>Assayers</b> (small).....	20%		D2 $\frac{1}{2}$

	<b>1</b>	<b>2</b>	<b>3</b>
119 *Assaying Establishments.....	15%	20%	D2 $\frac{1}{2}$
1. Additional labor (C. 3). 2. Heat (C. 3).			
120 Athletic Goods (see Sporting Goods).			
121 Auction Stocks .....	10%	20%	D3
(If highly damageable goods, class as D. 4).			
122 Automatic Machines, Slot, Chance, and Cash Registers .....	3%	5%	D3
1. If repairing on small scale, not over one drill and (or) lathe and not over 5 hands.	10%		
2. Power, heat, etc. (C. 2). If in excess of above, see Machine Shops.			
123 Automobile, Buggy, and Carriage Top Manufacturing .....	25%	40%	D3
1. Additional labor, power, heat, etc. (C. 3 $\frac{1}{2}$ ). 2. If automobiles permitted in building, not over 2 machines, with warranty that no charging of machines is done.....	30%		
3. If automobile charging, see charges under Automobile Stocks. If over 2 machines, see Automobile Stocks.			
124 *Automobile Garages for storage and care of Automobiles in use.....	100%	80%	D3
(For other charges see Automobile Stocks—charges 1 to 8, inclusive.)			
125 Automobiles in mercantile buildings.			
a. Not over two machines, with warranty that no charging or repairing of machines is done in building.....	30%		
1. Repairing and (or) charging, see charges under Automobile Stocks.			
b. Over two machines, see Automobile Stocks.			
126 Automobile Stocks: Electric, Steam or Gasoline Machines .....	20%	40%	D3
(No gasoline on premises or in machines.)			
127 *Automobile Stocks: Gasoline Machines, with gasoline in machines only.....	40%	80%	D3
1. Labor (repairing) (C. 4). 2. Power, heat, etc. (C. 4). 3. Charging with electricity not produced on premises, in rooms where gasoline or gasoline machines are kept.....	20%		
(Above charge is cumulative with charge for power if produced on premises.)			
4. Charging with gasoline (not cumulative with item 5):			
a. Gasoline delivered direct to machines from approved portable tank filled outside building.....	50%		
b. Gasoline delivered direct to machines from approved portable tank filled from approved pump inside building, or from approved cans.....	70%		
c. Gasoline delivered direct to machines from approved pump.....	70%		
d. Flexible tube on approved portable tank and (or) on approved pump not approved or over 10 feet long.....	20%		
e. Supply pump not approved.....	30%		
f. Outside supply delivered to building by gravity or compressed air (cumulative with b or c).....	50%		
g. Gasoline handled or stored in unapproved tanks or unapproved or open receptacles (see also item 6).....	130%		

NOTE: Where item g applies, no charges should be made under items a to f, inclusive.

5.	Gasoline used for washing and (or) cleaning outside of approved safety cans.....	130%	
6.	Gasoline in building outside machines in excess of one barrel:		
a.	Not over one barrel excess.....	100%	
b.	For each additional barrel.....	50%	
7.	<i>Lighting and heating</i> in rooms where gasoline is handled or stored, or filled machines are kept.		
a.	Open lights including open arc lights and (or) fire heat, see Appendix.		
b.	Incandescent electric lights not in vapor-proof globes with keyless sockets (porcelain, if portable), and swinging and portable lights not also protected by wire guards .....	50%	
8.	For stable.....	30%	
9.	If premises used as a public garage.....	60%	
128	<b>Automobile Supply Stocks</b> . . . . . (No machines.)	5%	10% D3
129	<b>Awning and Tent Making</b> (see Sewing Risks).		
133	<b>Badge</b> Manufacturing (see Stencil Manufacturing).		
134	<b>Bags</b> (textile) Stocks of.....	5%	10% D2
135	<b>Bags</b> (paper) Stocks of.....	5%	10% D3
136	<b>Bag</b> Factories, Textile (see Sewing Risks).		
137	<b>Bag</b> Factories, Paper (see Paper Bag Factories).		
138	<b>Bag</b> Cleaning and Repairing (see Carpet Cleaning).		
139	<b>Bags</b> , Leather, Stocks.....	3%	5% D2 1/2
140	<b>Bags</b> (leather) Manufacturing (see Leather Sewing Risks).		
141	<b>Bakeries</b> (retail) not over 5 hands..... (If over 5 hands, see Bakeries, wholesale). 1. Power, heat, etc. (C. 2).	10%	10% D3
142	<b>Bakeries</b> (wholesale or retail) bread only..... 1. Additional labor, power, heat, etc. (C. 2).	10%	10% D3
143	<b>Bakeries</b> (wholesale) no cracker or cookie baking .....	15%	20% D3
	1. Additional labor, power, heat, etc. (C. 3).		
144	<b>Bakeries</b> (wholesale) with cracker or cookie baking, etc..... 1. Additional labor, power, heat, etc. (C. 3 1/2).	25%	40% D3
145	<b>Bakers' Goods</b> (no baking).....	5%	10% D3
146	<b>Bakers'</b> Supply Stocks.....	5%	10% D2
147	<b>Baking Powder Factories</b> ..... 1. Additional labor, power, furnaces,etc.(C.3).	15%	20% D2 1/2
148	<b>Banana</b> Ripening (see Fruit Stores, Wholesale).		
149	<b>Banks</b> .....		D2
150	<b>Banner</b> and Flag Making (see Sewing Risks).		
151	<b>Barber</b> Shops..... 1. Hot water baths, if heat not produced by regular building heating plant, or outside	5%	D2 5%

2.	Turkish Baths, if hot room, tiled floor, walls and ceiling.....	10%	
3.	If wood floor, lath and plaster walls and ceiling, heated by steam, hot water, or air pipes.....	40%	
4.	If same as above heated by stove inside. (Charge for Turkish Baths includes charge for Hot Water Baths). No charge for small Barber Shops in upper stories of Mercantile Buildings.	70%	
152	<b>Barbers'</b> Supply Stocks (no manufacturing or repairing) .....	5%	10% D2 1/2
	1. If repairing or manufacturing of toilet preparations on small scale, not over 5 hands.....	15%	
	2. Power, heat, etc., (C. 3). If manufacturing toilet preparations, over 5 hands, see Perfumery manufacturing.		
153	<b>Basket</b> and Willow ware Stocks.....	10%	20% D3
154	<b>Basket</b> Making..... (No sawing or splitting). 1. Additional labor (C. 3 1/2). 2. Power (C. 3 1/2). When found with separate warehouse for storage of manufactured goods, class all contents as.....	25%	40% D3
155	<b>Baths</b> (see Barber Shops).		D2
156	<b>Batteries</b> (Storage) and Accessories, manufacturing .....	10%	10% D2
	1. Additional labor, power, heat, etc. (C. 2).		
157	<b>Beer</b> Pump Repair Shops (see Plumbers' Shops).		
158	<b>Beer</b> Storage .....		5% D2 1/2
159	<b>Belting</b> and Hose Stocks (rubber or leather)..	3%	5% D1 1/2
	1. If repairing on small scale, not over 5 hands .....	10%	
	2. Power, heat, etc. (C. 2). If over 5 hands, see Leather Sewing and Cutting.		
160	<b>Belting</b> and Hose Manufacturing (see Leather Sewing and Cutting).		
161	<b>Bicycle</b> Stocks (no repairing).....	3%	5% D2 1/2
	1. If repairing on small scale, not over 5 hands .....	10%	
	2. Power, heat, etc. (C. 2). 3. Painting, enameling, lacquering or dipping. If over 5 hands, see Machine Shops.		30%
162	<b>Bicycle</b> Repair Shops (no stocks), not over 5 hands .....	10%	10% D2 1/2
	1. Power, heat, etc. (C. 2). 2. Painting, enameling, lacquering or dipping. If over 5 hands, see Machine Shops.		30%
163	<b>Billiard</b> Tables, Stock of.....	3%	5% D2 1/2
164	<b>Billiard</b> Saloons (no bar).....	5%	D2 1/2
165	<b>Bird</b> Seed (see Seed Stores).		
166	<b>Bird</b> Stores, including birds, live animals and fish .....	5%	10% D4
167	<b>Bird</b> Stores, excluding birds, live animals and fish .....	5%	10% D2 1/2
168	<b>Bitters</b> , Manufacturing and Bottling.....	15%	20% D3
169	<b>Blacksmith</b> shops, no woodworking.....	5%	5% D1
	1. Additional labor, power, etc., (C. 1). 2. Forging, charge according to directions, page 20, Appendix. 3. Occasional hand woodwork repairs..... 4. Occasional painting.....		30% 10%

		<b>1</b>	<b>2</b>	<b>3</b>
170	<b>Blacksmith</b> and Wagon Shops.....	25%	40%	D2
	1. Additional labor, power, etc., (C. 3½).			
	2. Forging hazard, charge according to directions, page 20, Appendix.			
	3. Painting on metal only:			
	a. Regular .....	30%		
	b. Occasional .....	10%		
	4. Painting on wood or wood and metal:			
	a. Regular .....	50%		
	b. Occasional .....	20%		
	5. Trimming .....	30%		
	(If power woodworking machines except saws, nailers, or boring machines, or if more than one planer (either pony or block-planer-and-trimmer) see Woodworking.)			
171	† <b>Blind</b> , Sash and Door Stocks (not connected with Lumber Yards).....	10%	20%	D2
	1. Occasional painting and glazing.....	20%		
	2. Regular painting and glazing.....	50%		
	3. Power sanding without approved blowers, not over 2 machines.....	70%		
	4. Power sanding, as above, with approved blowers .....	30%		
	5. Power (C. 3½) (If planers or more than two sanders, see Woodworking.)			
172	<b>Boarding</b> and Lodging Houses in Mercantile buildings .....			D2
	1. Lodging only, not over 10 rooms.....	10%		
	2. Lodging only, not over 20 rooms.....	20%		
	3. Cooking for boarders not over one stove, range or furnace.....	15%		
	For each stove, range or furnace over 1, used for cooking, increase above charge one-fifth up to double the charge, counting each 5 fire pots, or fraction thereof in ranges, as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half.			
	4. If over 20 rooms, see Hotels (Family.)			
	If laborers' lodging or boarding houses, double the total of above charges and if over 20 rooms see Hotels (Transient).			
	NOTE: No charge for sleeping rooms of ground floor occupants or their clerks.			
173	† <b>Boarding</b> and Lodging Houses, (low grade bunk houses in mercantile buildings).....	100%	10%	D2
174	<b>Bolt</b> , Nut and Screw Stocks.....	5%	10%	D2
175	<b>Bonnet</b> and Hat Frame Factories.....	15%	20%	D3
	1. Additional labor (C. 3)			
	2. Power (C. 3)			
176	<b>Book Bindery</b> , (no printing).....	25%	40%	D3
	1. Additional labor, power, furnaces, etc (C. 3½).			
	Book Bindery with Printing (see Printers).			
177	<b>Book Binders'</b> Supplies.....	5%	10%	D2
178	<b>Book</b> and Stationery Stocks.....	5%	10%	D3
179	<b>Bootblacking</b> Parlors.....	3%		D2
180	<b>Boot</b> and Shoe Stocks (retail).....	5%	10%	D2
181	<b>Boots</b> and Shoes (wholesale), including Rubber Goods.....	3%	5%	D1 ¼

		<b>1</b>	<b>2</b>	<b>3</b>
182	<b>Boots</b> and Shoes (wholesale), Rubber Goods only.	3%	5%	D1
183	<b>Boot</b> and Shoe Factories (see Leather Sewing and Cutting Risks).			
184	<b>Bottle</b> or Hollow Glassware, Stocks of (no packing or unpacking) .....	5%	10%	D2
	1. Labor, packing or unpacking (C. 3). . . . .			
	2. If no bins for packing materials.....	20%		
	3. If hay or straw stored in building in excess of one day's supply, grade combustibility by scale for hay in feed stores.			
185	<b>Bottle</b> or Hollow Glassware Storage (new):			
	a. Goods not packed.....	5%	D2	
	b. Goods packed in boxes or crates (no hay or straw) .....	10%	D2	
	c. Goods packed in hay or straw.....	20%	D2	
186	<b>Bottle</b> Storage, second-hand (see Junk).			
187	<b>Bottlers'</b> Supplies with cartons (paper or straw) (not over 50 bales of straw).....	10%	20%	D3
	(If over 50 bales of straw, grade combustibility by scale for hay in feed stores.)			
188	<b>Bottling</b> Cellars.....	5%		D2
189	<b>Bottling</b> Works.....	10%	10%	D2
	1. Add'l labor, power, heat, etc. (C. 2). . . . .			
190	<b>Bowling</b> Alleys.....	5%		D3
191	<b>Box</b> Factories, (Cigar) no planing.....	25%	40%	D3
	1. Additional labor, power, heat, etc. (C. 3½). . . . .			
	2. Power sanding without approved blowers, not over 2 machines.....	70%		
	3. Power sanding as above with approved blowers .....	30%		
	(If planer or more than 2 sanders, see woodworking.)			
	When found with separate warehouse for storage of manufactured goods, class all contents as.....			
192	<b>Box</b> Factories (paper) folding only.....	15%	20%	D2½
	1. Additional labor, power, heat, etc., (C. 3). . . . .			
193	<b>Box</b> Factories (paper).....	25%	40%	D3
	1. Additional labor, (C. 3½). . . . .			
	2. Power (C. 3½). . . . .			
	3. Dry Rooms and Furnaces (C. 3½). . . . .			
194	<b>Brand</b> , Stencil and Stamp Works (see Stencil, Stamp, Brand, Seal and Badge manufacturing).			
195	<b>Brass</b> Goods.....	3%	5%	D1½
196	<b>Brass</b> , Copper, Aluminum, Tin and Lead in ingots or pigs (storage).....		5%	
	If all contents located on brick, concrete or earth floor, make rate 20% less than building rate.			
	If all contents not so located, make rate same as building rate.			
197	<b>Brass</b> Foundries (casting only, no machine work) .....	20%	10%	D1½
	1. Additional labor, power, heat, etc. (C. 2). . . . .			
	2. Brass furnace on concrete, brick or cement floor on iron I beams.....	40%		
	3. Brass furnace on wood floor with approved protection .....	60%		
	Increase charges 2 or 3 one-fifth for each brass furnace over 1 up to double the charge. Furnaces connected with other processes should be counted as "Additional" with brass furnaces.			

4.	If clearance from furnace to combustible material is less than 10 feet and furnace is not provided with a ventilating hood with not less than 2 feet clearance from hood to combustible material.....	50%		
5.	Casting floor not approved.....	50%		
6.	If machine work, see Machine Shops.			
198	<b>Brewers'</b> Supplies (mixed).....	5%	10%	D2 1/2
199	<b>Bric-a-Brac</b> and Curios (Stocks of).....	5%	10%	D4
200	<b>Bronze</b> Powder Stocks.....	5%	10%	D3
201	<b>Bronze</b> Liquids, see Paints and Oils.			
202	* <b>Broom</b> Corn Stored in Mercantile Buildings (not over 100 bales).....	20%	80%	D3
203†‡	* <b>Broom</b> Corn Warehouses.....	20%	160%	D3
	1. Labor baling (C. 4 1/2). 2. Power (C. 4 1/2).			
204†‡	* <b>Broom</b> Factories.....	100%	80%	D3
	1. Additional labor, power, heat, etc. (C. 4). 2. Bleaching, see Appendix. 3. Pitching, and (or) painting or varnishing handles When found with separate warehouse for storage of manufactured goods, class all contents as .....	30%		D2
205	<b>Broom</b> Makers (hand). Not over 2 hands,— small amount of material.....	50%	40%	D3
	1. Bleaching, see Appendix.			
206	* <b>Broom</b> Warehouses.....	20%	40%	D3
207	‡ <b>Brush</b> Factories.....	15%	20%	D2 1/2
	1. Additional labor (C. 3). 2. Power (C. 3). 3. Furnaces (C. 3). 4. Pitching .....	30%		
	(If woodwork, see woodworking).			
208	<b>Brush</b> Stocks.....	5%	10%	D2 1/2
209	‡ <b>Builders'</b> Materials, storage.			
	1. With hair, paper and cement only..... 2. With lime..... 3. With lime, pitch, tar, etc.....	10% 40% 40%	10% 40% 40%	D3 D3 D3
210	<b>Busheling</b> Shops (small). 1. Furnaces (C. 2).	5%	10%	D2
211	<b>Business</b> Colleges (see Academies).			
212	<b>Butchers'</b> Supplies.....	5%	10%	D2
	1. Saltpeter storage: a. Not over 5 barrels..... b. Not over 10 barrels..... If over 10 barrels, see Saltpeter Storage.	10% 20%		
213	<b>Butchers'</b> Shops. (No rendering or smoking in building). †1. Furnace (rendering) with kettle (C. 2). 2. Smoking meats, if not outside in detached brick outhouse or fireproof room communicating through approved fire door..... 3. Same, in fire-proofed room in main building, communicating through approved fire door, or in patent metal smoker in main building (approved arrangement) .....	3% 100%	5%	D3
	4. Same, in communicating fire-proofed addition with approved fire door..... 5. Power (C. 2). 6. If sausage-making, 1 grinder, no charge. 7. Sausage smoking in metal smoke box..... If cold storage apply charges in columns 1 and 2 under Cold Storage Warehouses, with the damageability given above.	30% 10% 10%		

		<b>1</b>	<b>2</b>	<b>3</b>
214	<b>Butter</b> , Cheese and Egg Stocks.....	5%	10%	D3
	1. Butter churning, mixing and (or) packing on small scale, not over 5 hands....	15%		
	(If over 5 hands, see Creameries.)			
	2. Power (C. 2).			
	3. For candling by artificial other than electric light in metal-lined room.....	10%		
	4. For candling by artificial other than electric light in the open.....	30%		
215	<b>Button</b> Stocks.....	5%	10%	D3
216	‡ <b>Button</b> Factories (cloth).....	15%	20%	D3
	1. Additional labor (C. 3).			
217	‡‡ <b>Button</b> Factories (pearl).....	40%	10%	D2
	1. Additional labor, power, etc., (C. 2).			
219	<b>Cabinet</b> Shops (see Woodworking.)			
220	<b>Candles</b> , Storage (in boxes).....	10%	D2	
221	‡ <b>Candy</b> Factories.....	25%	40%	D3
	1. Additional labor (C. 3½).			
	2. Power and heat (C. 3½).			
	3. Open lights in starch room.....	50%		
222	<b>Candy</b> Stores (small) no manufacturing.....	3%	5%	D3
223	<b>Candy</b> Stores (retail and wholesale).....	5%	10%	D3
	1. Labor (C. 2). No charge for 2 hands.			
	2. Power and heat (C. 2).			
224	<b>Canned Goods</b> , Stocks.....	3%	5%	D1½
225	<b>Canned Goods</b> , (Storage).....		5%	D1½
226	‡ <b>Canning</b> Factories, Huller, Sorting and Husking Buildings .....	15%	20%	D2
	(For Warehouses, see Canned Goods, Storage).			
	1. Additional labor, power, heat, etc., (C. 3).			
	2. Box making or re-coopering, no power woodworking machines except saws, nailers and (or) boring machines.....	30%		
	nailers and (or) boring machines.....	30%		
	3. Painting, varnishing or lacquering.....	10%		
	4. Tin Can making.....	10%		
	(Cumulative with charge under No. 1).			
	5. If printing or lithographing on tin.....	10%		
227	<b>Carpenter</b> Shops, see Woodworking.			
228	<b>Carpet Cleaning</b> Establishments (not over 1 gallon of gasoline in approved safety can).....	25%	40%	D2
	1. Additional labor (C. 3½).			
	2. Power (C. 3½).			
	3. If gasoline not in approved safety can....	10%		
	4. If over 1 gallon of gasoline, see Cleaning Establishments (Naphtha, etc.).			

		<b>1</b>	<b>2</b>	<b>3</b>
229	<b>Carpet</b> Linings and Mattings, paper or straw...	10%	20%	D3
230	<b>Carpet</b> and Rugs, Stocks of.....	3%	5%	D1½
	1. Labor (sewing) (C.1).			
	2. Power (C. 1).			
231	<b>Carpet</b> Weaving.....	10%	10%	D2
	1. Additional labor (C. 2).			
	2. Power (C. 2).			
232	<b>Carriage</b> and Wagon Repositories.....	5%	10%	D2
	1. Forge, portable (see Appendix).			
	2. Repairing, if woodwork, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
	3. Painting, occasional.....	20%		
	4. Trimming.....	20%		
	5. Power (C. 2). (If over 5 hands and (or) power woodworking in excess of above, see Blacksmith and Wagon Shops, or Wood- working.			
233	<b>Caskets</b> (see Undertakers' Supplies).			
234	<b>Celluloid</b> Goods, in original packages.....	20%	40%	D3
235	* <b>Celluloid</b> Goods manufactured from celluloid..	60%	160%	D3
	1. Additional labor, power, heat, etc., (C. 4½). If celluloid used in small quantities in connection with the manufacture of novelties, see Advertising Novelties.			
236	<b>Cement</b> , Building (storage).....	5%		D3
237	<b>Cement</b> or Tile Drain Pipe (storage).....	5%		D1
238	<b>Chandeliers</b> (see Gas Fixtures).			
239	‡ <b>Cheese</b> Factories (no butter making).....	10%	10%	D3
	1. Additional labor, power, heat, etc., (C. 2). 2. Caseine or cheese grinding.....	10%		
	3. If box making, no power wood working machines except saws, nailers and (or) boring machines.....	30%		
	4. If tin can making..... (Cumulative with charges under No. 1). (If Butter making, see Creameries and Cheese Factories).	10%		
	Machinery and Fixtures, class as.....			
240	<b>Cheese</b> Stocks.....	3%	5%	D2½
	1. If paraffining, labor, power, heat, etc., (C. 3).			
241*	† <b>Chemicals</b> with Acids (storage).....	20%	160%	D3½
242	† <b>Chemists'</b> Laboratories (small).....	20%		D3
	Chemists' Laboratories (large), rate by analysis.			
243	‡ <b>Chewing Gum</b> Factories.....	15%	20%	D3
	1. Additional labor (C. 3). 2. Power, kettles, etc. (C. 3).			
244	<b>China</b> Decorating (painting only).....	3%	5%	D3½
	1. Ovens (C. 1). (If firing done in approved fire-proofed room, no charge).			
245	<b>China Ware</b> (see Queensware).			
246	<b>Chinese</b> Stores (miscellaneous).....	10%	20%	D3½
247	<b>Chinese</b> Stores (Ceramics only).....	3%	5%	D3
248	<b>Chocolate</b> and Cocoa (Stocks).....	5%	10%	D2½
	1. Labor (C. 2). 2. Power and heat (C. 2).			
249	<b>Chocolate</b> and Cocoa (Stocks), in hermetically sealed packages .....	3%	5%	D1½
250	<b>Churches</b> in Mercantile Buildings.....	3%		

		<b>1</b>	<b>2</b>	<b>3</b>
251	<b>Church</b> Furniture, class as.....			D2
252	<b>Church</b> Organs, class as..... (When Furniture and Organ included under one item, class as D. 3).			D4
253	<b>Church</b> Goods (ornamental, statuary, etc.)....	5%	10%	D3
254	<b>Cider</b> Mills, see Vinegar Factories (cider)			
255	<b>Cider</b> and Vinegar in Barrels.....	3%	5%	D1
256	<b>Cigar</b> and Tobacco Stocks (Small Tobacco- nists) .....	5%		D4
	(No charge for small tobacco stands in office buildings, hotels, etc.)			
257	<b>Cigar</b> and Tobacco Stores and Smokers' Articles.	5%	10%	D4
	1. Labor (Cigar making) (C. 2). No charge for 2 hands.			
	2. Sweat Box, if any.....		20%	
258	‡ <b>Cigar</b> Factories .....	10%	10%	D4
	1. Additional labor (C. 2).			
	2. Sweat Box, if any.....		20%	
	When found with separate warehouses for storage of materials and manufactured goods, class all contents as.....			D3
259	<b>Cigar</b> Box Factories. (See Box Factories, cigar)			
260	<b>City</b> Halls or Council Rooms in Mercantile buildings .....	5%		D2
261	<b>Cleaning</b> and Dyeing Offices, receiving, deliver- ing, repairing, pressing, and (or) cleaning (not over 1 gallon gasoline in approved safety can, not over 10 hands).....	10%	10%	D3
	1. If gasoline not in approved safety can....	10%		
	2. If over 1 gallon gasoline or over 10 hands, see Cleaning Establishments (Naphtha, etc.)			
262	† <b>Cleaning</b> (steam) and (or) Dyeing.....	30%	10%	D2 ½
	1. Additional labor, power, heat, etc. (C. 2).			
263	* <b>Cleaning</b> Establishments (Naphtha, etc.) with ap- proved system of distribution.....	40%	80%	D3
	1. Additional labor, power, heat, dry rooms, etc. (C. 4).			
	2. If system of distribution not approved, or if gasoline or other volatile substances used for cleaning are brought into build- ing or used in receptacles not vapor proof.	100%		
	NOTE: This charge should apply for use of wooden washers, or where washers are opened before gasoline is drawn off, also if gasoline is allowed to flow into hopper not provided with vapor proof cover.			
	3. If without ventilating fan of approved capacity at floor level in washer and dry room .....		30%	
	4. If without approved arrangement of steam jet at ceiling and floor with quick-acting valve outside, for washer and dry room..		30%	
	5. Open lights, including open arc lights and (or) fire heat in washer and dry room, see Appendix.			
	6. Incandescent electric lights not in vapor proof globes with keyless sockets, and swinging lights not also protected by wire guards in washer and dry room....			50%
264	<b>Cloaks</b> and Women's Outer Garments (stocks of)	5%	10%	D2
265	<b>Clocks</b> , Watches and Jewelry, Stocks (see also Jewelry) .....	3%	5%	D2 ½
266	<b>Cloth</b> Sponging and Steaming.....	10%	10%	D2
	1. Additional labor, power, heat, etc. (C. 2).			

		<b>1</b>	<b>2</b>	<b>3</b>
267	<b>Cloths</b> (Woolen) Stocks of.....	3%	5%	D1 $\frac{1}{2}$
268	<b>Clothing</b> Factories (see Sewing Risks).			
269	<b>Clothing</b> , Stocks of.....	5%	10%	D2
	1. Altering, not over 5 hands, no charge.			
	2. Additional labor, heat, etc. (C. 2).			
270	<b>Clothing</b> Stores (second-hand).....	10%	20%	D3
271	<b>Club</b> Rooms (social), no Restaurant or Lodging.	3%		D2
	1. Add for Cooking.....	10%		
272	<b>Club</b> Houses (City).....	10%	10%	D2
	1. If lodging .....	10%		
	2. Cooking, not over one stove, range or furnace .....	15%		
	For each stove, range or furnace over 1, used for cooking, baking or laundering, in- crease above charge one-fifth up to double the charge, counting each 5 fire- pots, or fraction thereof in ranges, as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one- half.			
	3. If baking of bread and (or) pastry, charge for labor engaged in this work on scale of (C. 2).			
	4. If steam laundry, charge for labor en- gaged in this work on scale of (C. 2).			
	5. Dry rooms in connection with steam laun- dry, charge according to arrangement, (C. 2).			
	6. Power (C. 2).			
273	† <b>Coal</b> and Wood.....	10%	20%	D2
	1. Power sawing.....	10%		
	2. Power (C. 3).			
274	<b>Cobbler Shops</b> (under 5 hands).....	5%		D2
	1. Sanding and (or) buffing, not over 3 ma- chines .....			
	(If 5 hands or over and (or) over 3 sanding or buffing machines, rate as Leather Sewing Risk.)	25%		
	2. Power (C. 2).			
275	<b>Cocoa</b> (see Chocolate).			
276	<b>Coffee</b> Warehouses.....	5%		D2
277	<b>Coffee</b> , Wholesale Stocks. No roasting or grind- ing .....	3%	5%	D2
278	<b>Coffee</b> Stocks, with power grinding or packing.	5%	10%	D2
	1. Labor and Power (C. 2).			
	2. Grinding and (or) Cleaning.....	20%		
	(If roasting, see charges under 280.)			
279	<b>Coffee</b> , Tea and Spice Stocks. No roasting or grinding .....	5%	10%	D2 $\frac{1}{2}$
	If grinding, see 278 and Spice Stocks.			
280	† <b>Coffee</b> Roasting Establishments.....	10%	10%	D2
	(Arrangements.)			
	Standard No. 1. Floor, concrete, brick or ce- ment on iron I beams, or earth floor.			
	Standard No. 2. Wood floor covered by sheet metal and 2 courses of 4-inch hollow tile, crossed with boiler iron on top, or in lieu of 2 courses of hollow tile, 3 courses of brick, with middle course laid cross- wise and on edge, with ventilating spaces between. Floor protection to extend 4 feet in front and 2 feet at sides of furnaces.			

*Charges.*

1.	Standard 1: Roasters 20% + 4% to 40%.		
2.	Standard 2: Roasters 30% + 6% to 60%.		
3.	If floor not up to Standard 2, Roasters 50% + 10% to 100%. (If gas is used for fuel, charges 1, 2 and 3 may be reduced one-half.)		
	NOTE: When roasters with brick setting are arranged in batteries, all roasters in one battery may be classed as one roaster.		
4.	If combustible ceiling under 5 ft., but not less than 2 feet, unprotected.....	50%	
5.	If combustible ceiling less than 2 feet, unprotected .....	100%	
6.	If combustible ceiling less than 5 feet, protected by 4 inches of hollow tile plastered on exposed side, or by 3 inches of cellular vitrified asbestos, or their equivalent .....	25%	
	NOTE: When clearance is less than 24 inches, if the top of furnace is not also protected by 3 inches of asbestos cement or its equivalent, treat same as unprotected ceiling under charge 4.		
7.	If no blowpipe on cooling pans.....	50%	
8.	Additional labor, power, etc. (C. 2).		
9.	Coffee Grinding and (or) Cleaning.....	20%	
	NOTE: If coffee roasting is in a separate room with ceiling and floor brick or tile arched at least 8 inches thick and 6-inch hollow tile, or 8-inch brick walls, cut off by standard fire door, the total of above charges may be reduced 50% for Arrangement No. 1.		
10.	Spice grinding, not over one mill.....	30%	
	(If over one mill increase charge one-fifth for each mill over one up to double the charge.)		
11.	Small patent portable roaster (approved device and arrangement).....	20%	
	Increase charge one-fifth for each additional roaster up to double the charge.		
	If gas used for fuel charge may be reduced one-half.		
	Blow-pipe on cooling pans may be waived.		
281	Coins and Stamps, Stocks.....	3%	5% D3 1/2
282	#Cold Storage Warehouses (no poultry killing and packing)	5%	10%
	1. Additional labor, power, heat, etc. (C. 2).		
	2. If ammonia piped into building.....	10%	
	3. If air refrigeration by fans and flues and without individual refrigeration pipes in each floor or room.....		
	4. If as above and no dampers at each floor in all flues, each floor.....	10%	
	5. If sheathed walls, ceilings or partitions, with ground cork, felt or cork impregnated with combustible materials.....		
	(Cumulative with charge for wood sheathing, item 4a, page 22.)	5%	
	6. If sheathed walls, ceilings or partitions, with air, sawdust, shavings, cottonseed hulls or vegetable fibre insulation.....		
	(Cumulative with charge for wood sheathing, item 4a, page 22.)	10%	
	NOTE: No charge for mineral wool, cork board, lith board, cinder, fire-resisting compounds of ground cork, or other non-combustible insulating materials.		
7.	Ammonia drums (not attached to refrigerating machinery) if stored in building, or in shed adjoining building.....	20%	

		1	2	3
8.	If poultry killing on small scale, not over 5 hands .....	15%		
	(If over 5 hands, rate as Poultry Packing Establishment, which see, making such of above charges as specifically apply for cold storage features.)			
9.	If butter making or re-working on small scale, not over 5 hands.....	15%		
	If over 5 hands, rate as Creamery, which see, making such of above charges as specifically apply for cold storage features.			
10.	Candling by artificial light, other than electric, in metal-lined room.....	10%		
11.	Candling by artificial light, other than electric, in the open.....	30%		
12.	If coopering or woodworking, see Woodworking. Machinery and Fixtures class as..... Stock, class as.....		D1 D2	
283	Collar Factories (horse), leather. If moss or hair used for stuffing.....	25%	40%	D2
	1. Additional labor, power, heat, etc. (C. 3½).			
	*If hay, straw, shucks, etc., either alone or in combination with above.....	40%	80%	D2
	1. Additional labor, power, heat, etc. (C. 4). (For other charges see Leather Sewing Risks.)			
284	Colleges (see Academies).			
285	Commercial Schools (see Academies).			
286	Commission Houses with Storage Ware-rooms, Grain Receivers.....	5%	10%	D2
	Fruits, vegetables, poultry, eggs, butter, etc.	10%	20%	D3
	1. Candling by artificial other than electric light in metal-lined room.....	10%		
	2. Candling by artificial other than electric light in the open.....	30%		
	3. If poultry killing on small scale, not over 5 hands.....	15%		
	4. Power, heat, etc. (C. 3). If poultry killing, over 5 hands, see Poultry Packing Establishment.			
287	Commission Offices (no storage) .....		D2	
288	Composing (see Printers).			
289	Confectionery (see Candy).			
290	Cooper Shops (see Woodworking).			
291	Copper Goods.....	3%	5%	D1 ½
292	Copper, in ingots or pigs (see Brass, Copper, Aluminum, Tin and Lead, in ingots or pigs.)			
293	Cordage (see Twine, etc.)			
294	Cork (storage).....	5%	D2	
295	Cork (Baled Cork Wood) (storage).....	5%	D1 ½	
296	Cork, Stocks (no cartons (paper or straw)).....	3%	5%	D2
	1. Labor (cutting) (C. 1). 2. Power (C. 1). If with cartons (paper or straw), see Bottlers' Supplies.			
297	Cornice Works (see Machine Shops). (Small shops, not over 5 hands, rate as tin shops.)			
298	Corset Parlors.....		D3	
299	Corset Stocks.....	5%	10%	D3
	1. Labor (C. 2). 2. Power (C. 2).			

		<b>1</b>	<b>2</b>	<b>3</b>
300	<b>Costumers'</b> Stocks (for hire or sale).....	10%	20%	D4
	1. Labor (sewers) (C. 3).			
	2. Power (C. 3).			
301	* <b>Cotton</b> Batting Stocks.....	40%	80%	D3
302	<b>Cotton</b> Brokers' or Factors' Offices (with samples) .....	10%	20%	D3
303	<b>Cotton</b> Storage (in the absence of special schedule):			
	Not over 20 bales.....	10%	20%	D3
	*Not over 100 bales.....	20%	40%	D3
	(When cotton is stored in same premises with a mercantile stock the above classification should be used for entire contents when higher than the classification of the stock itself.)			
304	<b>Court</b> Rooms in Mercantile Buildings.....	5%		D2
305	<b>Creamery</b> Supplies (stocks).....	5%	10%	D2½
306	‡ <b>Creameries</b> and Cheese Factories.....	15%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
	2. Casein or Cheese Grinding.....	10%		
	3. If box making, no power woodworking machines except saws, nailers and (or) boring machines .....	30%		
	4. If Tin Can making.....	10%		
	(Cumulative with charges under No. 1.)			
	5. If cold storage, see Cold Storage Warehouses, making such charges as specifically apply for Cold Storage features.			
	(If cheese making only, see Cheese Factories.)			
	Machinery and fixtures, class as.....			D2
307	<b>Crockery</b> Warehouse, in original packages (see Queensware).			
308	<b>Curios</b> (see Bric-a-brac).			
309	<b>Cutlery</b> Grinding Shops without Stocks.....	5%	5%	D2
	1. Additional labor (C. 1).			
	2. Power (C. 1).			
310	<b>Cutlery</b> Stocks.....	3%	5%	D3
	1. Labor (grinding) (C. 1).			
	2. Power (C. 1).			
316	<b>Dance Halls</b> (see Halls).			
317	<b>Dairy Products</b> (see Butter and Cheese).			
318	<b>Decalcomania</b> Stocks.....	5%	10%	D4
319	<b>Decorations</b> , Flags, Banners, etc., Stocks of... If manufacturing (see Sewing Risks or Evergreen Decoration Manufacturing).	5%	10%	D3

		<b>1</b>	<b>2</b>	<b>3</b>
320	<b>Deformity Apparatus</b> (Stocks).....	5%	10%	D3
	1. Labor, repairing on small scale (no wood-working) .....	10%		
	2. Power, heat, forges, etc. (C. 2). . . . .			
321	<b>Deformity Apparatus</b> (Manufacturing).			
	a. No power woodworking machines, except saws, nailers, boring machines, and not over one planer (either pony or block-planer-and-trimmer) .....	25%	40%	D3
	b.* With power woodworking in excess of a.. . . . .	40%	80%	D3
	1. Power, heat, additional labor, etc., with item a (C. 3½); with item b (C. 4). . . . .			
322	<b>Delicatessen</b> , Delicacies and Condiments, see Groceries.			
323	<b>Dental Depots</b> .....	5%	10%	D3
	1. Storage of Nitrous Oxide Cylinders.....	10%		
324	<b>Dental Laboratories</b> .....	5%	5%	D3
	1. Additional labor, power, heat, etc. (C. 1). (No charge for small cupel furnaces heated by gas.) . . . . .			
325	<b>Dentists' and Doctors' Offices</b> , including instruments, materials, medicines and libraries..			D2
326	<b>Department Stores</b> , i. e., stores doing a business in general or mixed merchandise, either sub-divided into departments or not, or carried on by one or more than one ownership.			
	a. In towns of 5th and 6th Class, so-called Department Stores without industrial processes, are equivalent to General Merchandise Stocks, which see.			
	b. In cities and towns of Class 1, 2, 3, 4 and 4½, Department Stores vary so widely that each risk should be analyzed and rated upon the scale of the most combustible goods (not considering industrial processes) with a minimum of C. 3 and an average damageability of D. 3.			
	(In large open retail stocks where premises are crowded and goods hung up or festooned for display, combustibility should be not less than C. 3½.)			
	<i>Industrial Processes.</i>			
	1. If trimming, fitting, altering, or making of garments, millinery, furs, etc., not over 5 hands.....	10%		
	(If over 5 hands, charge additional labor C. 2.) . . . . .			
	2. If upholstering or mattress making, not over 5 hands.....	25%		
	(If over 5 hands, charge additional labor (C. 3½). . . . .			
	3. If picture frame making and (or) woodworking, with no power machines, except block planer and trimmer, saws, boring machines and (or) nailers, not over 5 hands.....	25%		
	(If over 5 hands, charge additional labor C. 3½.) . . . . .			
	4. If working on metals, not over 5 hands..	10%		
	(If over 5 hands, charge additional labor C. 2.) . . . . .			
	5. If baking, not over 5 hands.....	10%		
	(If over 5 hands, charge additional labor C. 2.) . . . . .			
	6. If candy making, not over 5 hands.....	10%		
	(If over 5 hands, charge additional labor C. 2.) . . . . .			

		1	2	3
7.	If labor (packing), not over 5 hands.... (If over 5 hands, charge additional labor (C. 3).	15%		
8.	If no closed bins for packing materials...	20%		
9.	If painting and (or) varnishing on metal only .....	30%		
10.	If painting, varnishing and (or) oiling on wood, or wood and metal.....	50%		
11.	Charge for power and (or) heat with any of above, on scales of combustibility above indicated for additional labor, charging for the major heat device with each kind of industry and other devices in each industry as additional.			
12.	If rendering kettles, charge for furnaces with kettles on scale of C. 3, and if smoking meats or sausage, apply charges 2, 3, 4, 6 or 7, under Butcher Shops.			
13.	If restaurants with cooking, not over one stove, range or furnace..... For each stove, range or furnace over one, used for cooking, increase above charge one-fifth up to double the charge, count- ing each 5 fire pots, or fraction thereof in ranges, as one furnace. If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half. NOTE: No charge for lunch room without cooking, except Coffee, Tea and Cocoa making.	25%		
327	†Depots, Railway. Not Terminal. Passenger depots .....	10%		D2
	Freight depots .....	20%	20%	D2
	Freight and passenger depots..... Charges in columns 2 and 3 apply to mer- chandise in transit. If business occupan- cies in a depot, rate as if in an omni- bus building.	30%	20%	D2
328	Detective Agencies (large).....	10%		D2
329	Draperies, Stocks of..... If manufacturing, see Sewing Risks.	5%	10%	D3
330	Dressmakers, not over 5 sewers.....			D3
331	Dressmaking Establishments, not over 10 hands †1. Additional labor (C. 1).	5%	10%	D3
332	Dried Fruit (storage). See Fruits, dried.			
333	Drill Halls (see Armories).			
334	Drug Stores (retail).....	10%	20%	D2½
335	Drug Stores (wholesale). Dry Drugs, no compounding.....	10%	20%	D3½
336	*†Drug Stores (wholesale) should be rated by restrictions, if any, embodied in policy form. If form contains no restrictions..	40%	80%	D3½
	1. If manufacturing, labor, power, heat, etc. (C. 4). 2. If compounding with combustible or ex- plosive materials, not less than.....	50%		
	3. Drug grinding, not over one mill.....	30%		
337	Drugs, Crude, with Herbs, etc. (stored).....	10%		D3½
338	Druggists' Sundries, only.....	5%	10%	D2½
339	Druggists' Sundries, with essential oils and fine chemicals .....	10%	20%	D2½
340	Dry Goods Stocks (retail)..... 1. Labor, trimming, fitting, etc. (C. 2).	5%	10%	D2½

		<b>1</b>	<b>2</b>	<b>3</b>
341	<b>Dry Goods</b> Stocks (wholesale).....	5%	10%	D2
342	<b>Dry Goods</b> Warehouses, package goods only...	5%	5%	D1 $\frac{1}{2}$
343	<b>Dwellings</b> , Flats or Apartment Houses in upper stories of Mercantile Buildings.....			D2
344	<b>Dyeing</b> and Cleaning (see Cleaning and Dyeing).			
345	<b>Dye Stuffs</b> (Stocks).....	10%	20%	D3
348	<b>Egg</b> Cases (with or without fillers), see Wooden-ware.			
349	† <b>Egg</b> Desiccating or Crystallizing.....	30%	10%	D3
	1. Additional labor, power, heat, etc. (C. 2)			
350	<b>Egg</b> Storage .....	10%		D3
	1. Candling by artificial other than electric light in metal-lined room.....	10%		
	2. Candling by artificial other than electric light in the open.....	30%		
351	<b>Elastic</b> Fabrics, Stocks.....	5%	10%	D3
	1. Labor (C. 2).			
	2. Power (C. 2).			
352	<b>Electric</b> Belts, Stocks of.....	3%	5%	D3
	1. Labor (C. 1).			
	2. Power (C. 1).			
353	<b>Electric</b> Transformer Station in mercantile buildings .....			D2 $\frac{1}{2}$
	a. Rotary Converters only..... (Standard Installation.)	20%		
	b. Static Transformers with or without Ro-tary Converters..... (Standard Installation.)	50%		
354	<b>Electrical</b> Shops (no stocks or laboratory). (Not over 5 hands).....	10%	10%	D2 $\frac{1}{2}$
	1. Power, heat, etc. (C. 2).			
	2. If over 5 hands, see Machine Shop.			
355	<b>Electrical</b> Supplies.....	3%	5%	D2 $\frac{1}{2}$
	1. If shop work on small scale (no laboratory), not over 5 hands.....	10%		
	2. Power and furnaces, etc. (C. 2).			
	If shop work, over 5 hands, see Machine Shops.			
356	† <b>Electrical</b> Laboratories .....	20%	10%	D3
	1. Additional labor, power, heat, etc. (C. 2).			
357	<b>Electroplating</b> Establishments (no electrotyping)	5%	5%	D3
	1. Additional labor, power, heat, etc. (C. 1).			
	2. Metal buffing and polishing with approved metal blower system, outside exhaust... (No charge for one small wheel for occasional use.)	10%		

	3.	Same as 2 without approved metal blower system .....	50%		
		Increase one-fifth for each machine over three up to double the charge. (No charge for one small wheel for occasional use.)			
358	†	<b>Electrotyping</b> Establishments, and Electroplating	30%	10%	D3
	1.	Additional labor, power, heat, etc. (C. 2).			
	2.	Metal buffing and polishing with approved metal blower system, outside exhaust... (No charge for one small wheel for occasional use.)	10%		
	3.	Same as 2 without approved metal blower system .....	50%		
		Increase one-fifth for each machine over three up to double the charge. (No charge for one small wheel for occasional use.)			
		If woodworking, see Woodworking.			
359		<b>Embossing</b> (No Printing).....	10%	10%	D2
	1.	Additional labor, power, heat, etc. (C. 2).			
360		<b>Embroideries</b> , Stocks of.....	5%	10%	D3
361		<b>Embroideries</b> , manufacturing.....	15%	20%	D3
	1.	Additional labor, power, heat, etc. (C. 3).			
362		<b>Emery</b> Wheel Stocks.....	3%	5%	D2
		No charge for occasional babbiting.			
	1.	Heat (C. 1).			
363		<b>Employment</b> Offices .....			D2
364		<b>Engine</b> Packing Manufacturing.....	15%	20%	D2
	1.	Additional labor, power, heat, etc. (C. 3).			
365		<b>Engravers</b> (wood).....	10%	10%	D3
	1.	Additional labor (C. 2).			
	2.	Printing with "D" presses only.....	10%		
366		<b>Engravers</b> (metal).....	5%	5%	D2½
	1.	Additional labor (C. 1).			
	2.	Printing with "D" presses only.....	10%		
367		<b>Envelope</b> manufacturing.....	25%	40%	D3
	1.	Additional labor, power, heat, etc., (C. 3½).			
368		<b>European</b> Hotels (see Hotels).			
369		<b>Evergreen</b> Decoration Manufacturing.....	25%	40%	D4
	1.	Additional labor, power, heat, etc. (C. 3½).			
370		<b>Express</b> Offices.....	5%	10%	D2
371		<b>Express</b> Stations (transfer, no stable).....	20%	40%	D2

		<b>1</b>	<b>2</b>	<b>3</b>
375	<b>Feather</b> Duster Manufacturing.....	25%	40%	D3
	1. Additional labor, power, heat, etc. (C. 3½).			
376	<b>Feather</b> Duster Stocks.....	5%	10%	D3
	†1. Labor, not over 5 hands (C. 3). †2. Power and furnaces (C. 3). If over 5 hands, see Feather Duster Manufacturing.			
377	<b>Feathers</b> and Flowers (Artificial). Small retail stocks.....	5%	10%	D4
378	<b>Feather</b> Stocks (Upholsterers)..... Sewing only, no cleaning, or renovating. 1. Labor (sewing) (C. 2). 2. Power (C. 2).	5%	10%	D3
379	<b>Feather</b> Stocks (upholsterers)..... With cleaning or renovating. 1. Labor (C. 3). 2. Power and furnaces (C. 3). If shoddy, moss, tow or excelsior is a part of stock, see Upholstering Establish- ments if labor is done; if not charge for these substances by the scale for hay in Feed Stores.	10%	20%	D3
380	* <b>Feed</b> Mills (not over 1 carload hay or straw).. 1. Additional labor, power, heat, etc., (C. 4½). If over one carload hay or straw, see Feed Stores (over 1 carload hay or straw) and charges 1 and 2 thereunder.	60%	160%	D2
381	<b>Feed</b> Stocks .....	5%	10%	D3
382	<b>Feed</b> Stocks Manufacturing (Poultry, Cattle, Horses, etc.) (No power chopping, grinding or cleaning) .....	15%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3). 2. If power chopping or grinding, not over two machines .....			
	3. If power cleaning, not over two machines.. If over two machines in all, mentioned in above items 2 and 3, risk should be rated as a Feed Mill.	30%	25%	
	NOTE: This item should not apply to risks where alfalfa is ground or chopped, for which see special rules for the class.			
383	<b>Feed</b> Stores (no hay or straw).....	5%	10%	D2
384	<b>Feed</b> Stores (not over 50 bales hay or straw) .	10%	20%	D3
385	<b>Feed</b> Stores (not over 100 bales hay or straw) .	20%	40%	D3
386	* <b>Feed</b> Stores (not over 1 carload hay or straw) .	40%	80%	D3
387	* <b>Feed</b> Stores (over 1 carload hay or straw).... 1. If power cleaning, with feed store risks, not over 2 machines.....	60%	160%	D3
	2. If power chopping or grinding, not over two machines with feed store risks... If over two machines in all, mentioned in above items 1 and 2, are found in risks rated under 383-6 inclusive, risk should be rated as a Feed Mill.			
	3. Power, with items 383-4 or 5, (C. 3½); with item 286, (C. 4); and with 387, (C. 4½).	25%	30%	
388	<b>Felt</b> Stock (see Cloths).			
389	<b>Fibre</b> Ware Stocks, see Wood Fibre Ware, Stocks.			
390	<b>Filters</b> , Stocks of, with setting up only.....	3%	5%	D2
391	<b>Fire</b> Arms, Stocks of..... If with Sporting Goods, see Sporting Goods.	5%	10%	D3
392	<b>Fire</b> Crackers (Chinese) in original packages.	20%	40%	D3½

		1	2	3
393	<b>Fire</b> Engine Houses, no stabling.....			D2
	1. Stabling .....	10%		
	2. <i>a.</i> Lock-up with iron cells.....	20%		
	2. <i>b.</i> If wooden cells, increase 2 <i>a</i> .....	50%		
394	* <b>Fire</b> Works stocks in original packages.....	60%	160%	D4
395	* <b>Fire</b> Works, open stocks.....	80%	320%	D4
	1. Labor, packing (C. 5).			
396	<b>Fish</b> Stocks (cured).....	3%	5%	D1 $\frac{1}{2}$
397	<b>Fish</b> and Oyster Stocks (fresh).....	3%	5%	D3 $\frac{1}{2}$
	If cold storage, apply charges in columns 1 and 2 under Cold Storage Warehouses, with the damageability given above.			
398	<b>Fish</b> Net Weaving, see Hammock and Net Weaving.			
399	<b>Fixtures</b> (gas and electric) Stocks of. See Gas and Electric Fixtures.			
400	<b>Fixtures</b> , Store and Bank. Charge building rate when insured with building. Charge stock rate when in- sured with stock, or specific.			
401	<b>Flags</b> and Banner Stocks (see Decorating Stocks).			
402	<b>Flats</b> (see Dwellings).			
403	‡ <b>Flavoring</b> Extract Manufacturing, cold process..	15%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
404	<b>Flavoring</b> Extract, Stocks.....	5%	10%	D3
405	<b>Florists'</b> Stocks.....	3%	5%	D2 $\frac{1}{2}$ D4
	Other contents .....			
	Plants and flowers.....			
406	<b>Flour</b> Storage. <i>a.</i> In packages, no mixing or sifting.....	5%	D1 $\frac{1}{2}$	
	1. Add for not over 2 power machines for mixing or sifting.....	25%		
	2. Power (C. 3 $\frac{1}{2}$ ). <i>b.</i> With mixing and (or) sifting with over 2 power machines .....	25%	40%	D2
	1. Additional labor, power, heat, etc., (C. 3 $\frac{1}{2}$ ).			
407	<b>Flowers</b> , Artificial (see Feathers and Flowers).			
408	<b>Freight</b> Houses of Transportation Lines, Ter- minal, (to be applied only on specific prop- erty of consignors or consignees while in freight depots or warehouses).....	20%	80%	
	The following are cumulative with regular structural charges: 1. If platform rests on piles and space be- neath is not enclosed with spark proof wire netting or other approved inclosure.	10%		
	2. If wood floor not filled in with earth or cinders to floor line..... (Reduce charge one-half when so filled).	10%		
	3. If heated by stoves outside of office.....	10%		
	4. If lighted by kerosene lamps outside of office.....	10%		
	5. If gasoline torches or lamps.....	50%		
	6. If locomotives permitted in building.....	25%		
	7. If no signs prohibiting smoking outside of office .....	5%		
	8. If tugs or steamers moored to dock when not in use.....	30%		
	NOTE: Contents take regular differential ac- cording to the classified damageability of the property insured.			
409	<b>Fringe</b> and Trimming Stocks.....	5%	10%	D3
410	<b>Fringe</b> and Trimming Factories. (See Knit- ting Works).			
411	<b>Fruit</b> Stores (retail).....	3%	5%	D3
	<i>a</i>			

		<b>1</b>	<b>2</b>	<b>3</b>
412	<b>Fruit Stores</b> (wholesale).....	10%	20%	D3
	1. Banana ripening .....	20%		
	If steam or hot water heat, no charge.			
413	<b>Fruits</b> (dried), storage.....		10%	D2
414	<b>Fruits</b> (dried), Stocks of, with renovating, etc.	5%	10%	D2
	1. Labor, heat, etc., (C. 2).			
415	<b>Furnace Stocks</b> .....	3%	5%	D2
	1. If shop work on small scale, not over 5 hands .....	10%		
	2. Power, heat, etc., (C. 2).			
	If shop work over 5 hands, see Machine Shops.			
416	<b>Furnished Rooms</b> (see Boarding and Lodging).			
417	<b>Furnishing Goods</b> (Men's).....	5%	10%	D2 1/2
418	<b>Furniture</b> , household, stored see Household Furniture (stored).			
419	<b>Furniture Stocks</b> .....	10%	20%	D2 1/2
	When premises are crowded with goods, crated or wrapped with paper, excelsior, etc., charges may be increased at discretion of raters to.....	20%	40%	D2 1/2
	1. Add for repairs on small scale.....	10%		
	2. Add for upholstering on small scale.....	10%		
	3. Add for varnishing on small scale.....	10%		
	Charges 1, 2 and 3 are to be made where only occasional work is done. If regular work is carried on, see Woodworking or Upholstering.			
420	<b>Furniture Stocks</b> (second-hand).....	20%	40%	D3
	1. Add for repairs, upholstering, etc. (See Furniture Stocks).			
421	<b>Furs</b> , wholesale, in packages.....	3%	5%	D2
422	<b>Furs</b> , retail.....	3%	5%	D3
	(Fancy City Stocks class as D. 3 1/2.)			
423	<b>Fur Dressing</b> .....	15%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
424	<b>#Fur Sewing Risks.</b>			
	Coarse Furs .....	10%	10%	D2 1/2
	Fine furs, seal, sable, otter, mink, ermine, etc. ....	10%	10%	D3 1/2
	1. Additional labor (C. 2).			
	2. Power, Heat, etc. (C. 2).			
	Machinery and Fixtures, class as.....			D2 1/2

		<b>1</b>	<b>2</b>	<b>3</b>
429	<b>Gambling</b> Rooms, no kitchen.....	10%		D4
	1. Cooking, not over one stove, range or furnace .....	15%		
	For each stove, range or furnace over 1, used for cooking, increase above charge one-fifth up to double the charge, counting each 5 fire pots, or fraction thereof in ranges, as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half.			
430	<b>Gambling</b> Supplies .....	5%	10%	D3 $\frac{1}{2}$
431	<b>Gas</b> (Carbonic Acid) in Drums.....	3%	5%	D1
432	<b>Gas</b> (Oxygen and Hydrogen) Manufacturing....	15%	20%	D2 $\frac{1}{2}$
	1. If over 1 day's supply potassium chlorate kept in building.....	50%		
433	<b>Gas</b> and Electric Fixtures, Stocks of.....	3%	5%	D3
	1. If repairing or manufacturing on small scale, not over 5 hands.....	10%		
	2. Power, heat, etc., (C. 2).			
	3. If lacquering .....	30%		
	4. If buffing or polishing, see charges 14 or 15, Machine Shops.			
	If shop work over 5 hands, see Machine Shops.			
434	<b>Gas</b> Meter and Fixtures Repair Shops (no Stocks). (Not over 5 hands).....	10%	10%	D2 $\frac{1}{2}$
	1. Power, heat, etc. (C. 2).			
	2. If lacquering .....	30%		
	3. If buffing or polishing, see charges 14 or 15, Machine Shops.			
	4. If over 5 hands, see Machine Shops.			
435	<b>General</b> Merchandise, Stocks..... (Not Department Stores).	5%	10%	D2
436	<b>General</b> Storage Warehouse should rate by stipulation with Warehouseman as follows: a. With Warehouseman's stipulation No. 1.. b. With Warehouseman's stipulation No. 2.. c. With Warehouseman's stipulation No. 3.. d.†*With no stipulation except printed policy conditions .....	3% 10% 20% 40%	5% 20% 80% 160%	
	When policies cover Warehouseman's storage charges or liability to customers, they should be issued upon the average contents differential of D. 3, and same differential should be applied to property insured for customers when they hold no Warehouse receipt, or the receipt does not specifically name the property insured and the kind of packages in which it is contained. When the receipt so describes property, it should take the differential to which it is entitled according to its damageability. If two or more kinds of property so described, it should take the differential of the most damageable.			
	For full information as to Warehouses, and stipulations, etc., see "Listed Warehouses," Supplement.			
	1. If open fires or lights outside of office. a. With Warehouseman's stipulation No. 2.. b. With Warehouseman's stipulation No. 3.. c. With no Warehouseman's stipulation....	10% 50% 100%		
	2. No signs posted prohibiting smoking outside of office.....	20%		

		1	2	3
437	<b>Gents' Furnishing Goods</b> (see Furnishing Goods).			
438	<b>Glass</b> Blowing (from tubing).....	10%	10%	D3
	1. Additional labor, power, heat, etc. (C. 2).			
439	<b>Glass</b> , Plate, Stained, Ornamental and Window:			
	a. Goods packed in boxes or crates (no hay or straw) .....	5%	10%	D3
	b. Goods packed in hay or straw.....	10%	20%	D3
	1. Labor (polishing, grinding or silvering) with a (C. 2); with b (C. 3).			
	2. Labor (packing) with b (C. 3).			
	3. If no bins for packing materials.....	20%		
	4. If hay or straw stored in building in excess of 50 bales, grade combustibility by scale for hay in Feed Stores.			
440	<b>Glass</b> , Plate, Stained, Ornamental and Window (Storage):			
	a. Goods packed in boxes or crates (no hay or straw) .....	10%	D3	
	c. Goods packed in hay or straw.....	20%	D3	
441	<b>Glassware</b> (see Queensware).			
442	<b>Glassware</b> , Hollow (see Bottles).			
443	<b>Glove Stocks.</b>			
	a. High grade, kid, etc.....	3%	5%	D3
	b. Leather, cloth, etc.....	3%	5%	D2½
	If manufacturing, see Leather Sewing if Kid or Leather, and Sewing Risks if Cloth.			
444	<b>Glucose</b> in Barrels.....	3%	5%	D1
445	<b>Glue</b> Storage.....		5%	D1½
446	<b>Gold</b> Beaters.....	5%	5%	D2½
	1. Additional labor (C. 1).			
447	<b>Granite</b> Ware.....	3%	5%	D1
448	* <b>Grease</b> Risks, general, not including large manufacturing establishments or Butcher Shops	25%	40%	D2
	1. If melting and (or) mixing by steam....	30%		
	2. If melting and (or) mixing by furnace kettles .....	60%		
	3. Additional labor (C. 3½).			
	4. Power, furnaces, kettles, etc., (C. 3½).			
449	<b>Grease Stocks</b> (no processes).....	20%	40%	D2
450	<b>Green Grocers</b> (see Markets, Vegetable).			
451	<b>Groceries</b> , Stocks of			
	a. Ordinary retail stocks.....	5%	10%	D2
	If fancy stocks, with delicacies, condiments, fruits, etc., class as.....			D2½
	1. Coffee or Spice Grinding, see Groceries, wholesale.			
	b. Wholesale, (heavy) as sugar, salt, molasses, etc. No wooden, basket or willow ware, brooms, oils, matches, cigars or other like combustibles, and free from industrial processes.....	3%	5%	D1½
	c. Wholesale, entirely free from industrial processes, with a limited supply of wooden, willow and basket ware, brooms, matches, etc., and no oils, fixed ammunition or explosives, may at the discretion of rater, be rated at.....	5%	10%	D3
	d. Wholesale, general stocks.....	10%	20%	D3
	1. For each 200 cases of matches in excess of 200 .....	5%		

2. If manufacturing or industrial processes are carried on, the hazards should be analyzed and charges for labor, power, heat, etc., applied on the scale of combustibility of the most combustible process, with a minimum of C. 3 as directed in Appendix.

(Furnaces connected with other processes should be charged for by rules for furnaces and not counted as "additional" with coffee roasters).

3. If power coffee grinding and (or) cleaning (not cumulative with 4).....

20%

4. If power spice grinding, not over one mill .....

30%

(If over one mill, increase charge one-fifth for each mill over one, up to double the charge).

5. If coffee roasting, make charge for roasters as specified under Coffee Roasting Establishments, which see.

NOTE: Charges for mills, cleaners or roasters under items 3, 4 or 5, are cumulative with charge for hands engaged or furnaces connected with other processes under item 2.

If cigars and tobacco insured specifically under c or d, class cigars and tobacco as..

D4

If policy form excludes cigars and tobacco under c or d, class as.....

D2

452 **Gun and Locksmiths**..... 10% 10% D2  
1. Additional labor (C. 2).  
2. Furnaces, power, etc., (C. 2).

453 **Gymnasiums**..... 5% D2

457 **Haberdashers'.** See Furnishing Goods, Men's.  
458 **Hair-dressing Parlors**..... D3  
459 **Hair Goods** (human and artificial)..... 3% 5% D3½  
1. Labor (C. 1).  
460 **Halls** (Society), Lodge or Club Rooms, (no cooking), including private Dance Halls. 3% 10% D2  
1. Add for cooking..... 10%  
If more than one hall in building, maximum cooking charge not to exceed 20%.  
461 **Halls** (Public or Labor Union), with or without boxed platform stage, no scenery..... 10% D2  
1. Add for cooking..... 10%  
2. Heated by hot air furnace or stoves..... 5%  
(This charge applies only when building has no other occupancies).

1      2      3

3.	If boxed platform stage with small amount of fixed scenery, or not over 3 shifts of sliding scenery.....	20%	
4.	Same as No. 3, lighted by gas on stage or in dressing rooms.....	5%	
5.	Same as No. 3, with gas footlights.....	5%	
6.	Same as No. 3, lighted by other than electric or gas on stage or in dressing rooms .....	10%	
7.	Same as No. 3, with other than electric or gas footlights.....	15%	
8.	Add for dressing rooms.....	15%	

462	<b>Halls</b> (public), with enclosed platform stage and sliding scenery (over three shifts).	60%	20%	D3½
1.	Heated by hot air furnace or stoves.....	10%		
2.	Lighted by gas on stage or in dressing rooms .....	10%		
3.	Gas footlights.....	10%		
4.	Lighted by other than electricity or gas on stage or in dressing rooms.....	20%		
5.	Lighted by other than electric or gas foot-lights .....	30%		
6.	Add for dressing rooms.....	15%		

NOTE: Risk should be starred, and all of the above charges in column 1, increased one-half in halls with both *lifting* as well as *sliding* scenery, or for stage with egress and ingress, dressing rooms, etc., beneath, and doubled for both lifting scenery and stage as described.

When building contains a superstructure above proscenium for scene shifting, if with brick walls, count it as an additional story for entire building, both as to basis rate and area charge, and if frame or iron-clad increase area charge 10 points in addition to above.

If *lifting* as well as *sliding* scenery, or stage with egress and ingress, dressing rooms, etc., beneath, contents should class as D. 4.

The above should be used in rating halls in mercantile buildings and small theatres in towns of less than 10,000 population. For regularly occupied city theatres, see Theatre Schedule.

463	<b>Hammock</b> and Net-weaving.....	10%	10%	D2½
1.	Additional labor (C. 2).			
2.	Power, heat, etc., (C. 2).			
3.	Pitching furnaces (C. 3½).			
4.	If pitching, (cumulative with charge 3 for furnaces).....	20%		

464	<b>Hardware Stocks</b> (general), no tin work, paints or oils.....	5%	10%	D2
1.	Labor—tin work (not over 5 hands) (C. 1). No charge for 2 hands.			
2.	Furnace (C. 1). If Paints and Oils, see Appendix. If over 5 hands, see Machine Shops.			

465	<b>Hardware Stocks</b> (heavy), no cutlery, shelf or wooden goods.....	3%	5%	D1
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466	<b>Hardware Stocks</b> (heavy), same as 465 with wagon materials.....	5%	10%	D2
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467	<b>Harness and Saddlery Stocks</b> (not over 5 hands)	3%	5%	D2
1.	Collar stuffing, occasional, not over 1 hand .....	30%		
If over 5 hands, or if regular collar stuffing, rate as Leather Sewing Risk and (or) Collar Factory.)				

		1	2	3
468	<b>Hat</b> and Cap Stocks (retail).....	5%	10%	D2 $\frac{1}{2}$
469	<b>Hat</b> and Cap Stocks (wholesale) excluding straw .....	3%	5%	D1 $\frac{1}{2}$
470	<b>Hat</b> and Cap Stocks (wholesale) including straw .....	5%	10%	D2
471	<b>Hat</b> and Cap Stocks (wholesale) straw only...	10%	20%	D3
472	‡ <b>Hat</b> Factories, felt, cloth and silk.....	15%	20%	D2 $\frac{1}{2}$
	1. Additional labor (C. 3). . . . .			
	2. Power, furnaces, dry rooms, etc. (C. 3). . . . .	20%		
	3. Pouncing (no blowers).....	20%		
	4. Singeing .....			
473	‡ <b>Hat</b> Factories (straw).....	25%	40%	D3 $\frac{1}{2}$
	1. Additional labor (C. 3 $\frac{1}{2}$ ). . . . .			
	2. Power, furnaces, dry rooms, etc., (C. 3 $\frac{1}{2}$ ). . . . .			
	Machinery and Fixtures, class as.....			D2 $\frac{1}{2}$
474	<b>Hat</b> Cleaning Shops.....	15%		D3
	1. Additional labor (C. 3). . . . .			
	2. Furnaces, dry rooms, etc. (C. 3). . . . .			
	3. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety cans.....	10%		
	4. If can not approved, or if over 1 gallon gasoline kept in building, see Appendix.			
475	<b>Hay</b> and Feed Stocks (see Feed Stores).			
476‡*†	<b>Hay</b> Barns or Warehouses (storage only).....	40%	160%	D3
477‡*†	<b>Hay</b> Barns or Warehouses with pressing and (or) baling .....	100%	160%	D3
	1. Additional labor, power, etc. (C. 4 $\frac{1}{2}$ ). . . . .			
478	<b>Hektographs</b> , Stocks of.....	3%	5%	D3
479	* <b>Hemp</b> in mercantile buildings (unhacked) not over 100 bales.....	20%	80%	D3
480‡*†	<b>Hemp</b> warehouses (unhacked).....	100%	160%	D3
481	<b>Hemp</b> in mercantile building (hacked) not over 100 bales.....	10%	40%	D2
482‡*†	<b>Hemp</b> warehouses (hacked).....	40%	160%	D2
483	<b>Hides</b> and <b>Skins</b> :			
	a. Green Hides, no tallow or grease.....	3%	5%	D1
	b. Dry Hides, no tallow or grease.....	5%	10%	D1 $\frac{1}{2}$
	If with grease, see Appendix.			
484	<b>High Wines</b> , see Liquor Stores.			
485	‡ <b>Hooks</b> and <b>Eyes</b> , manufacturing.....	10%	10%	D2 $\frac{1}{2}$
	1. Additional labor (C. 2). . . . .			
	2. Power, furnaces, etc. (C. 2). . . . .			
486	<b>Heps</b> in Bales (storage).....		20%	D3
487	<b>Horse</b> collars, manufacturing, see Collar Factories (horse).			
488	<b>Hosiery</b> and Underwear Stocks.....	5%	10%	D2
489	<b>Hospitals</b> , private, for non-contagious diseases (see Sanitariums).			
490	<b>Hotels</b> .			
	a. Family .....	30%	10%	D2
	b. Transient .....	50%	10%	D2
	1. If cooking.....	25%		
	For each stove, range or furnace over one, used for cooking, baking or laundering, increase above charge one-fifth up to double the charge, counting each five fire pots, or fraction thereof in ranges as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half.			
	2. If baking of bread and (or) pastry, charge for labor engaged in this work on scale of (C. 2.). . . . .			

	3. If steam laundry, charge for labor engaged in this work on scale of (C. 2.)			
	4. Dry rooms in connection with steam laundry, charge according to arrangement (C. 2.).			
	5. Power (C. 2.).			
	6. Turkish baths, see charges 2, 3 or 4, Barber Shops.			
	(No charge for Bar or Barber Shops if connected with Hotel.)			
491	<b>House</b> Furnishing Stocks.....	5%	10%	D2
492	<b>House</b> Painters' Supplies (no paints or oils, mixing or painting) .....	10%	20%	D2
	1. If paints and oils, mixing and (or) painting, see Paint Shops.			
493	<b>Household</b> Goods, stored in mercantile buildings (contents of not over one household)			D3 1/2
494	<b>Household</b> Goods, stored in mercantile buildings (contents not over 3 households). If over 3 lots, see Household Furniture Warehouses.	20%	40%	D3 1/2
495	<b>Household</b> Furniture Warehouses for stored household goods temporarily not in use....	20%	80%	D3 1/2
503	<b>Ice</b> Cream Parlors.....	5%	10%	D2
504	<b>Ice</b> Cream Factories.....	10%	10%	D2 1/2
	1. Additional labor (C. 1).			
	2. Power, etc. (C. 1).			
505	<b>Ice</b> Factories.....	5%	5%	
	1. Power (C. 1).			
	2. Additional Labor (C. 1).			
	3. Ammonia drums (not attached to refrigerating machinery), if stored in building or in shed adjoining building.....	20%		
	Machinery and fixtures class as.....			
	Materials and product class as.....			
	If cold storage, rate as Cold Storage Warehouse.			
506	<b>Ice Houses</b> , small private in mercantile buildings	20%		
507	<b>India</b> Rubber Goods (heavy).....	3%	5%	D1
508	<b>India</b> Rubber Goods, Retail Stocks.....	3%	5%	D1 1/2
509	<b>India</b> Rubber Goods, with Oiled Clothing.....	5%	10%	D1 1/2
510	<b>India</b> Rubber Hose, Belting, etc. (see Belting).			
511	<b>Ink</b> , Printing, Stocks.....	5%	10%	D2
512	<b>Ink</b> (writing) Stocks.....	3%	5%	D2 1/2

		<b>1</b>	<b>2</b>	<b>3</b>
513 †* <b>Ink</b> (Printing) manufacturing, no oil boiling..		40%	80%	D2 $\frac{1}{2}$
1. Additional labor, power, heat, etc. (C. 4).				
If oil boiling .....		60%	160%	D2 $\frac{1}{2}$
1. Additional labor, power, heat, etc. (C.4 $\frac{1}{2}$ )				
514 † <b>Ink</b> (writing) manufacturing.....		15%	20%	D2 $\frac{1}{2}$
1. Additional labor (C. 3).				
2. Furnaces, kettles, etc. (C. 3).				
515 <b>Instruments</b> , Surgical, Optical, Mathematical, etc.....		3%	5%	D3
516 <b>Instruments</b> , Manufacturing (Optical, Surgical etc.), should be rated by analysis and application of charges in Appendix.				
517 <b>Iron</b> and Steel, Heavy (stored). See also Steel.		5%	D1	
518 <b>Iron</b> Pipe and Tubing Stocks.....		3%	5%	D1
519 <b>Ivory</b> Turners .....		10%	10%	D3
1. Additional labor, power, heat, etc. (C. 2).				
525 <b>Jails</b> or Lockups, with iron cells.....		20%		D1
1. If wooden cells .....	add	50%		
2. Stablings .....	add	10%		
526 <b>Japanese Stores</b> (see Chinese Stores).				
527 † <b>Japanning</b> and Enamelling.....		50%	40%	D2 $\frac{1}{2}$
1. Additional labor, power, heat, etc. (C.3 $\frac{1}{2}$ ).				
2. Metal buffing and polishing with approved metal blower system, outside exhaust... (No charge for one small wheel for occasional use).		10%		
3. Same as 2 without approved metal blower system .....	50%			
Increase one-fifth for each machine over three up to double the charge. (No charge for one small wheel for occasional use).				
528 <b>Jelly</b> Manufacturing (see Syrup Refining).				
529 <b>Jewelers' Implements and Supplies</b> .....		3%	5%	D2 $\frac{1}{2}$
530 † <b>Jewelry</b> and Watch Case Manufacturing.....		5%	5%	D2 $\frac{1}{2}$
1. Additional labor (C. 1).				
2. Power, furnaces, etc. (C. 1).				
531 † <b>Jewelry</b> Case Manufacturing.....		15%	20%	D3
1. Additional Labor (C. 3).				
2. Power, furnaces, etc. (C. 3).				
532 <b>Jewelry</b> Stocks .....		3%	5%	D2 $\frac{1}{2}$
No charge for repairs, 2 or 3 hands.				

		<b>1</b>	<b>2</b>	<b>3</b>
533	<b>Junk.</b> a. Metal, rubber and (or) glass only..... b. General (except rags or paper)..... 1. Labor, power, heat, etc. (C. 2). If rags or paper, see Rags or Paper (waste or cuttings).	50%	5%	D3
534	<b>Justice</b> of Peace, court room.....	100%	5%	D4
		5%		D2
544	<b>Kerosene</b> , Standard (see Oils).			
545	<b>Kid</b> Glove Stocks (see Gloves).			
546	<b>Knit</b> Goods (see Hosiery).			
547	<b>Knitting</b> Works. <i>Woolens</i> .....	15%	20%	D2
	<i>Silks</i> .....	15%	20%	D3
	1. Additional labor (C. 3). 2. Power, heat, etc. (C. 3).			
	<i>Cottons, Linens, etc.</i> .....	25%	40%	D2 $\frac{1}{2}$
	1. Additional labor (C. 3 $\frac{1}{2}$ ). 2. Power, heat, etc. (C. 3 $\frac{1}{2}$ ). Where two or more materials are used, all charges should grade by that of highest combustibility.			
	Machinery and fixtures class as.....			D2 $\frac{1}{2}$
554	<b>Laboratories</b> (see Chemists' Laboratories).			
555	<b>Lace</b> and Embroidery Stocks.....	5%	10%	D3
556	<b>Ladies'</b> Waists and Dresses.....	5%	10%	D3
557	<b>Lamp</b> Shades, paper and fabrics.....	5%	10%	D4

		<b>1</b>	<b>2</b>	<b>3</b>
558	<b>Lamp</b> , Stocks (ordinary).....	3%	5%	D3
559	<b>Lamp</b> , high-grade art stocks.....	3%	5%	D3 $\frac{1}{2}$
560	<b>Lamp</b> (Gasoline) Testing.....	5%	5%	D3
	1. Testing in approved room (not cumulative with 2) .....	30%		
	2. Testing, not approved.....	60%		
561	<b>Lamp</b> Wick Stocks.....	5%	10%	D1 $\frac{1}{2}$
562	† <b>Laundries</b> (hand).....	30%	10%	D2 $\frac{1}{2}$
	1. Additional labor (C. 2).....			
563	† <b>Laundries</b> (Steam).....	50%	10%	D2 $\frac{1}{2}$
	1. Additional labor (C. 2).....			
	2. Dry room, according to arrangement (C.2), see Appendix.....			
	3. Power (C. 2).....			
	4. Gasoline cleaning, not over 1 gallon gasoline in approved safety can, no charge.....			
	5. If gasoline not in approved safety can....	10%		
	6. If over 1 gallon gasoline, see Cleaning Establishments (Naphtha, etc.).....			
564	<b>Laundry</b> Offices (no laundering).....	5%	10%	D2 $\frac{1}{2}$
565	<b>Laundry</b> Supply Stocks.....	5%	10%	D2
566	<b>Lead</b> , in ingots or pigs (see Brass, Copper, Aluminum, Tin and Lead, in ingots or pigs).....			
567	<b>Lead</b> Pipe and Sheet Lead (stored).....		5%	D1 $\frac{1}{2}$
568	<b>Leather</b> Imitations, Stocks.....	5%	10%	D2
569	<b>Leather</b> Stocks.			
	a. Rough, heavy and sole.....	3%	5%	D1
	b. Harness, grain, split and calf, including findings .....	3%	5%	D2
	c. Fancy, morocco, sheep, goat, kid, shagreen and patent, including findings....	3%	5%	D2 $\frac{1}{2}$
570	‡ <b>Leather</b> Sewing and Cutting, embracing all risks where leather is sewed, cut or cemented (excepting cobblers, harness shops and collar factories) .....	10%	10%	
	Class rough, heavy and sole as.....			D1
	Class harness, grain, split and calf, including findings, as.....			D2
	Class morocco, sheep, goat, kid, patent and fancy, including findings, as.....			D2 $\frac{1}{2}$
	Machinery and fixtures class as.....			D2 $\frac{1}{2}$
	1. Additional labor and power (C. 2).....			
	2. Furnaces (C. 2).			
	(Not applicable to devices covered under items 9, 10 and 11.)			
	3. Harness oiling (not cumulative with 4).....	5%		
	4. Harness dipping .....	15%		
	5. Combustible cement that does not require heating, used from closed cans under regular printed permit, limited to one day's supply .....	30%		
	(Not cumulative with charge 6.)			
	6. Combustible cement that requires heating and (or) inking, dyeing or blacking with materials thinned with benzine, naphtha or other like volatile combustibles or their compounds, used from closed cans under regular printed permit, limited to one day's supply .....	100%		
	7. If dyeing or inking of edges only with materials thinned as above described, if kept in metal receptacle, not exceeding one pint capacity.....	10%		
	(Not cumulative with 6.)			
	8. If drying of goods dyed, inked or blacked with materials thinned as above described .....	100%		

9.	Wax or Pitch Cups, not on machines, heated by coal or oil stoves.....	25%
	(If heated by gas or electricity, reduce charge one-half. If by steam, no charge.)	
10.	Heating devices on stitching or edge-finishing machines, heated by oil.....	25%
	(If heated by gas or electricity, reduce charge one-half. If by steam, no charge.)	
11.	Heating Tools in metal boxes. a. If by metal lamps..... b. If by glass lamps or oil stoves.....	20% 30%
	(If in wooden boxes, double charges <i>a</i> or <i>b</i> .)	
12.	Storage of loose cuttings or refuse in building, except in fireproof room cut off .....	20%
13.	Heel or Edge machines or other buffing or sanding machines with metal blower with outside exhaust.....	10%
14.	If without blowers or with blowers having no outside exhaust.....	50%
	(Increase charge one-fifth for each machine over 3 up to double the charge.)	
15.	Wooden Heel making .....	30%
	(Not cumulative with charge 16).	
16.	Wooden Last making (not over 5 hands). If over 5 hands, charge for additional hands engaged in woodwork on scale of (C. 4).	40%
17.	No approved waste cans for scrapings from cutting boards.....	50%
18.	If more than one day's supply of rubber or other cement, dye or volatile fluid combustibles kept in building, see Gasoline Storage, page 24, Appendix.	
19.	Sole or heel drying in metal or wooden boxes, see Dry Heat Boxes, page 22, Appendix.	
20.	Collar making on small scale in Harness Factories, not over one day's supply of stuffing material in building.....	50%
	If stuffing material over one day's supply, or over 5 stuffers, rate as Collar Factory.	
571	<b>Libraries</b> in mercantile buildings (private)...	D2 $\frac{1}{2}$
572	<b>Libraries</b> (circulating or public) in mercantile building .....	3%      5%      D2 $\frac{1}{2}$
573	† <b>Lime</b> (storage) .....	80%      10%      D3
574	<b>Linens</b> (stocks of) .....	5%      10%      D2
575	<b>Liquors</b> , retail (see Saloons).	
576	<b>Liquors</b> , wholesale (no rectifying)..... 1. Labor, rectifying (cold process) or bottling (C. 2). 2. Power, heat, etc. (C. 2).	5%      10%      D2
577	<b>Liquor</b> and Cigar Stocks.....	5%      10%      D3
578	<b>Lithographing</b> Establishments (see Printing, Job, with over 3 presses).	
579	<b>Lithographers'</b> Supplies (Stocks), including stones, ink, machinery, etc.....	3%      5%      D2 $\frac{1}{2}$
580	<b>Livery</b> Stables (see Stables).	
581	<b>Locksmiths</b> (see Gun and Locksmiths).	
582	<b>Lodge</b> Rooms (see Halls, Society).	
583	<b>Lodging</b> Houses (see Boarding and Lodging Houses).	

593	Macaroni Stocks .....	3%	5%	D3 $\frac{1}{2}$
594	‡ Macaroni Manufacturing .....	10%	10%	D3
	1. Additional labor (C. 2).			
	2. Power, furnaces, dry rooms, etc. (C. 2).			

595 ‡Machine Shops.

NOTE: Where an occupancy listed elsewhere in Alphabetical List is classed under this item, the damageability of such occupancy should apply.

a.	†Dry stamping or turning, drilling and boring without oils, no woodworking (C. 2) .....	30%	10%	D2
b.	†Turning, drilling, boring, etc., with oils, no woodworking (not over 5 hands) (C.2) .....	30%	10%	D2
c.	†Turning, drilling, boring, etc., with oils, no woodworking (over 5 hands) (C. 3) ..	50%	20%	D2
1.	Additional labor with a, (C. 2); with c, (C. 3)			
2.	Power, heat, etc., with a or b, (C. 2); with c, (.C 3).			
3.	Forging, if any, see page 20, Appendix.			
4.	If non-combustible floor where turning, drilling or boring is done, decrease column 1 charge under a or b 10 points, and under c 20 points.			
5.	Brass Furnace:			
(aa)	On concrete, brick or cement floor on iron I beams.....	40%		
(bb)	On wood floor with approved protection .....	60%		
	Increase charges one-fifth for each brass furnace over one up to double the charge. Furnaces connected with other processes should be counted as "additional" with brass furnaces.			
(cc)	If clearance from furnace to combustible material is less than 10 feet and furnace is not provided with a ventilating hood with not less than 2 feet clearance from hood to combustible material .....	50%		
6.	Brass casting floor not approved.....	50%		
7.	Gasoline testing (not over 1 gallon gasoline) .....	30%		
8.	If gasoline used for washing and (or) cleaning, not over 1 gallon gasoline in approved safety can.....	10%		
	If over 1 gallon in approved safety cans, see Appendix.			

9.	If gasoline used for washing and (or) cleaning with gasoline outside of approved safety cans.....	100%
10.	Painting, occasional.....	10%
11.	Painting, enameling, lacquering or dipping (regular) .....	30%
12.	Dip Tank, with cover.....	20%
13.	Dip Tank, without cover..... (Increase charges 12 and 13 one-fifth for each additional tank up to double the charge.)	40%
	<b>NOTE:</b> If dipping in materials thinned with benzine, naphtha, or other like volatile combustibles or their compounds, double charges 12 and 13.	
14.	Metal buffing or polishing with approved metal blower system, outside exhaust.. (No charge for one small wheel for occasional use.)	10%
15.	Same as 14 without approved metal blower system .....	50%
	Increase one-fifth for each machine over three up to double the charge. (No charge for one small wheel for occasional use.)	
16.	Emery grinding, with approved blower system in room without power wood-work, buffing, painting or dipping..... Double the charge if without approved metal blower system. (No charge for one or two small wheels.)	5%
17.	Same as 16 in rooms with power wood-work, buffing, painting or dipping..... Double the charge if without approved metal blower system. (No charge for one or two small wheels.)	30%
18.	If woodworking, see Woodworking, apply charges under 1, 2 and 3 according to combustibility of occupancy, also items 4-9 and 14-17. Charges for painting and (or) dipping, should be made on scale for woodworking.	
19.	If automobiles permitted in building, not over 2 machines, with warranty that no charging of machines is done.....	30%
20.	If automobile charging, see charges under Automobile Stocks. If over 2 machines, see Automobile Stocks.	

596	<b>Machinery</b> Stocks (heavy) .....	3%	5%	D1 1/2
597	<b>Machinery</b> Stocks (light).....	3%	5%	D2 1/2
598	<b>Machinery</b> , Laundry .....	5%	10%	D2
	1. Labor (C. 2). 2. Forge, Portable (see Appendix). If over 5 hands and (or) power woodworking, see Machine Shops and (or) Woodworking. 3. Painting: a. Occasional .....	20%	50%	
599	<b>Mailing Tube</b> Manufacturing, see Box Factories (Paper).			
600	<b>Manicuring</b> Parlors.....			D2
601	<b>Mantels</b> (wood), Stocks of.....	5%	10%	D2 1/2
602	<b>Mantels</b> (metal), Stocks of.....	3%	5%	D2
603	<b>Mantels</b> for incandescent lamps.....	5%	10%	D4

604*†	Mantle Factories (for incandescent gas lamps).			
a.	No collodion made or inflammable materials compounded on premises.....	100%	80%	D4
b.	Collodion made or inflammable materials compounded in building.....	100%	160%	D4
1.	Additional labor, power, heat, etc., with <i>a</i> (C. 4), with <i>b</i> (C. 4½).			
2.	If gun cotton, ether or other like combustibles or explosives stored in building outside of vault.....	100%		
3.	If prepared materials in excess of one day's supply stored in building outside of vault .....	50%		
	(Not cumulative with 2.)			
4.	If prepared materials in excess of one day's supply stored in building, in approved vault .....	20%		
	(Not cumulative with 2, 3 or 5.)			
5.	If gun cotton, ether or other like combustibles or explosives stored in building in approved vault.....	50%		
	(Not cumulative with 2.)			
6.	If gun cotton, ether or other like combustibles or explosives stored in vault under sidewalk or areaway.....	20%		
	(Not cumulative with 2 or 5.)			
7.	If prepared materials kept in vault, under area-way or sidewalk, no charge.			
605	Manual Training Schools (see Academies).			
606	Map Mounting.			
a.	Without varnishing (C. 3).....	15%	20%	D3 ½
b.	With varnishing (C. 3½).....	25%	40%	D3 ½
1.	Additional labor, heat, etc., according to above combustibility.			
607	Marble Stocks.....	3%	5%	D2 ½
	(High-grade Carvings, see Statuary.)			
608	Marble Shops.....	5%	5%	D2 ½
	If high-grade carvings.....			D4
1.	Additional labor (C. 1).			
2.	Power (C. 1).			
609	†Markets, Public.....	30%	10%	D3
610	Markets (vegetable).....	3%	5%	D3
611	Masquerade Costumes (see Costumers).			
612	Massage Parlors .....			D2
1.	Power (C. 1).			
2.	If baths, see Barber Shops.			
613	*Matches in original packages.....	40%	80%	D3 ½
614	*Mattress Material, Stocks, with tow, shoddy, moss, excelsior, etc.....	40%	80%	D3
	If small quantities of tow, shoddy, moss, excelsior, etc., see scale for hay with Feed Stores.			
615	‡Mattress Factories (upholstering) using hair and (or) cotton felt only.....	25%	40%	D3
1.	Additional labor, power, heat, etc. (C. 3½).			
2.	Picker, hand .....	25%		
3.	Picker, power .....	50%		
	(Charges 2 and 3 for picker may be reduced one-half if in a metal-lined room with steam jet.)			
616†*†	Mattress Factories (upholstering), using moss, tow, shoddy, excelsior, cotton, etc.....	100%	80%	D3
1.	Additional labor (C. 4).			
2.	Picker, hand .....	50%		

		1	2	3
3.	Picker, power .....	100%		
	(Charges 2 and 3 for picker may be re- duced one-half if in a metal-lined room with steam jet.)			
4.	Power, labor (C. 4).			
617	† <b>Mattress</b> Factories (wire).			
	a. Cold metal work only.....	5%	5%	D2
	b. Metal work other than cold.....	10%	10%	D2
	1. Additional labor, power, heat, etc., with a (C. 1), with b (C. 2).			
	If woodwork see Woodworking.			
618	<b>Meat</b> Markets (see Butcher Shops).			
619	<b>Meats</b> , Fresh, Stored—not in cold storage ware- house .....		5%	D3
620	<b>Meats</b> (cured) in bulk, stored.....		5%	D2
621	<b>Meats</b> (pickled in barrels), stored.....		5%	D1
622	<b>Merchandise</b> mixed warehouses, see General Stor- age Warehouses.			
623	<b>Merchant</b> Tailors, with cutting only, no mak- ing, pressing or cleaning (not over 10 hands) (If over 10 hands, see Sewing Risks.)	5%	5%	D2
624	<b>Merchant</b> Tailor Stocks, with making (see Tai- lors).			
625	<b>Metals</b> , in ingots or pigs (see Brass, Copper, Tin and Lead in ingots or pigs.)			
626	<b>Mica</b> Stocks .....	5%	10%	D2
627	<b>Military</b> Stocks, no manufacturing.....	5%	10%	D3
628	<b>Milk</b> Risks.			
	a. Depots (no processes).....	3%	5%	D3
	b.† Skimming stations, bottling and (or) con- densing works .....	10%	10%	D3
	1. Additional labor, power, heat, etc. (C. 2).			
	2. If box making, no power woodworking machines except saws, nailers, and (or) boring machines .....		30%	
	3. If Tin Can making.....		10%	
	(Cumulative with charges under No. 1.)			
	4. If cold storage, see Cold Storage Ware- houses, making such charges as specific- ally apply for cold storage features. Machinery and fixtures class as.....			D2
629	<b>Mill</b> Supplies .....	5%	10%	D2½
630	<b>Millinery</b> Parlors and small stocks..... (Not over two or three trimmers.)	5%	10%	D4
631	† <b>Millinery</b> Stocks, retail (not over 10 trimmers)	10%	20%	D4
	1. Additional labor (C. 1).			
	2. Power (C. 3).			
632	† <b>Millinery</b> Stocks, wholesale (not over 10 trim- mers) .....	10%	20%	D3½
	1. Additional labor (C. 1).			
	2. Power (C. 3).			
633	<b>Mince</b> Meat Manufacturing.....	10%	10%	D3
	1. Additional labor, power, heat, etc. (C. 2).			
634	<b>Mineral</b> Wool (see Asbestos).			
635	<b>Mineral</b> Water Stocks.....	3%	5%	D1½
636	<b>Mineral</b> Water Factories, see Bottling Works.			
637	<b>Mirrors</b> , Stocks .....	3%	5%	D3
638	<b>Model</b> Makers (metal), see Machine Shops.			
639	<b>Modistes</b> , see Dressmakers.			

		1	2	3
640	<b>Molasses</b> in barrels, storage.....		5%	D1½
641	<b>Motor Cycle</b> (Stocks).....	20%	40%	D3
	1. Labor (repairing) (C. 3½).			
	2. Power, heat, etc. (C. 3½).			
	3. Charging with gasoline, see charge 4, Automobile Stocks.			
	4. Gasoline used for washing and (or) cleaning outside of approved safety cans.....	130%		
	5. Gasoline in building outside machines in excess of one barrel:			
	a. Not over one barrel excess.....	100%		
	b. For each additional barrel.....	50%		
	6. Lighting and heating in rooms where gasoline is handled or stored, or filled machines are kept, see charge 7, Automobile Stocks.			
642	<b>Mouldings</b> , Stocks of.....	20%	40%	D3
643	<b>Moving Picture Films</b> , Stocks of, in original packages .....	20%	40%	
	1. If films are removed from original packages and (or) are repaired, rate as Moving Picture Film Exchange.			
	2. If small exhibition room with moving picture machine, charge for machine by scale of charges under Moving Picture Theaters.			
	Class films and machines as double.....			D4
	Class films in approved vaults or safes as			D4
	Class other contents as.....			D2
644	<b>Moving Picture Films</b> , Exchanges.....	40%	80%	
	1. Labor (film repairing) (C. 4).			
	2. Repairing of moving picture machines (small) .....	10%		
	3. If no approved metal waste cans or metal boxes for scraps of film.....	30%		
	4. If smoking permitted, see After Charges.			
	5. If small exhibition room with moving picture machine, charge for machine by scale of charges under Moving Picture Theaters.			
	6. If staging of acts or plays for moving picture film manufacture, charge for stage, scenery, dressing rooms, etc., by scale of charges under Halls (public).			
	7. If scenery painting by other than water colors .....	30%		
	8. Where entire stock of films (except those in actual process of being repaired or rewound) is stored in standard fireproof vaults or safes at all times, occupancy charges given above may be reduced to. And film repairing charged for as Labor (C. 3½).		20%	40%
	Class films and machines as double.....			D4
	Class films in approved vaults or safes as			D4
	Class other contents as.....			D2
	NOTE: Where repairing is done in entire metal-lined room or its equivalent, and no films except those in actual process of being repaired or rewound are allowed in room, and room does not communicate directly with any vault or room where films are stored, above charges for repairing may be reduced one-half.			

		1	2	3
645	† <b>Moving Picture Theaters.</b>			
	a. Machine enclosed in standard booth, as per specifications.....	30%		
	b. Machine enclosed in wood, metal lined booth, with all openings and ventilation as per standard specifications.....	50%	20%	
	c. Machine not enclosed, or in wooden booth not metal lined.....	100%	40%	
	1. If machine under item <i>a</i> , <i>b</i> or <i>c</i> not equipped with shutter in front of Condenser, as per specifications, add.....	10%		
	Class machine and films as double.....			
	Class other contents as.....			
	NOTE; If with scenery (not over 3 shifts), dressing rooms, footlights, etc., see charges under Halls (Public or Labor Union). If over 3 shifts of sliding scenery, class as Hall (Public) with enclosed platform stage and sliding scenery (over 3 shifts), and apply above charges in columns 1 and 2 for moving picture machine occupancy.			
				D4
				D2
646	<b>Mucilage Factories.</b> See Paste Factories.			
647	<b>Musical Instrument Stocks</b> .....	5%	10%	D3
648	<b>Music Stores (small)</b> , no repairs.....	5%	10%	D3
649	<b>Music Stores (large)</b> general musical merchandise .....	10%	20%	D3
	1. Labor (repairing) (C. 3).			
	2. Power, heat, etc. (C. 3).			
650	† <b>Museums</b> (dime), no scenery.....	50%	10%	D3
	Exhibits grade double.....			D4
651	<b>Museums</b> (dime) with scenery. See Halls.			
	Exhibits grade double.....			D4
652	<b>Museums</b> , high-grade art, etc.....	10%		D4
658	<b>Natatoriums</b> .....	5%		D2
659	<b>Naval Stores.</b> See Ship Chandlers.			
660	<b>Neckwear.</b> See Furnishing Goods.			
661	<b>Neckwear Factories.</b> See Sewing Risks.			
662	<b>Needles, Stocks of</b> .....	3%	5%	D4
663	<b>Newsdealers' and Stationers' Stocks</b> .....	5%	10%	D3
	(No charge for occupancy of small news stands.)			
664	<b>Nickel Plating.</b> See Plating.			
665	<b>Notions (retail)</b> .....	10%	20%	D3
666	<b>Notions (wholesale)</b> .....	5%	10%	D3

		<b>1</b>	<b>2</b>	<b>3</b>
667	<b>Notions</b> (paper), manufacturing.....	25%	40%	D3½
	1. Additional labor (C. 3½).			
	2. Power, heat, etc. (C. 3½).			
668	<b>Novelties</b> Manufacturing, see Advertising Novelties.			
669	<b>Nuts</b> (peanuts) without shelling and cleaning..	5%	10%	D2
	1. Furnaces, if any (C. 2).			
670	<b>Nuts</b> (peanuts) with shelling and (or) cleaning.	10%	20%	D2
	1. Labor (C. 3).			
	2. Power (C. 3).			
	3. Furnaces, if any (C. 3).			
674	<b>Oakum</b> , on storage.			
	a. <i>Ship's Oakum</i> .			
	1. Not over 20 bales.....	10%	20%	D3
	2. Not over 100 bales.....	20%	40%	D3
	3.*Over 100 bales.....	20%	80%	D3
	b. <i>Plumber's Oakum</i> .			
	1.*Not over 100 bales.....	20%	80%	D3
	2.*Over 100 bales.....	20%	160%	D3
	(When stored in same premises with a mercantile stock, the above classification should be used for entire contents when higher than that of the stock itself.)			
675	<b>Office</b> Occupancies, business and professional men, insurance, railroads, etc.....			D2
676	<b>Oiled</b> Clothing, see Ship Chandler Stocks.			
677	<b>Oils</b> , Essential (stocks).....	5%	10%	D3
678	<b>Oils</b> , including vegetable, animal and fish oils, lard, tallow and other non-volatile, no processes.....	20%	40%	D2
	Star if over 50 barrels.			
679	* <b>Oils</b> , general stock of, not including any of the products of petroleum except standard kerosene .....	40%	80%	D2
	1. Mixing by steam.....	30%		
	2. Mixing by furnace kettles.....	60%		
	3. Furnaces, kettles, etc. (C. 4).			
680	* <b>Oils</b> , Kerosene, Standard.....	40%	80%	D2
681	* <b>Oils</b> , including crude petroleum and its lighter products, as gasoline, naphtha, benzine, etc..	80%	320%	D2
682	<b>Oils</b> and Paints. See Paints and Oils.			
683	<b>Oil</b> Paintings, on sale or exhibition.....			D4
684	<b>Oil</b> Cloths, stocks, including linoleum.....	5%	10%	D1½
685	<b>Optical</b> Instruments. (See Instruments.)			

		<b>1</b>	<b>2</b>	<b>3</b>
686	<b>Opticians</b> .....	3%		D3
687	<b>Oriental Rug Stocks</b> , Turkish, Persian, Japanese, etc.....	3%	5%	D2 $\frac{1}{2}$
688	<b>Overall Factories</b> . See Sewing Risks.			
689	<b>Over Gaiters</b> , manufacturing. See Sewing Risks.			
696	<b>Paintings</b> , Oil. See Oil Paintings.			
697	<b>Paints</b> , dry colors.....	3%	5%	D2 $\frac{1}{2}$
698	<b>Paints</b> , small unbroken package stocks..... (If wall paper, class entire stock as D3 $\frac{1}{2}$ .)	5%	10%	D2
699	<b>Paints and Oil Stores</b> , small retail (not over 5 barrels not including dry colors and stock in original packages not exceeding 10 gallons capacity) .....	10%	20%	D2
	(If wall paper, class entire stock as D3 $\frac{1}{2}$ .)			
	1. If mixing by hand or painting on premises .....	30%		
700	<b>Paints</b> , Oils and Varnish Stocks (no processes) (not over 15 barrels not including dry colors and stock in original packages not exceeding 10 gallons capacity).....	20%	40%	D2
	1. Oil drawing .....	30%		
	2. If over 15 barrels or if grinding or mixing, see next item.			
701	* <b>Paints</b> , Oils and Varnish. large stocks.....	20%	40%	D2
	1. If oil drawing.....	30%		
	2. If mixing on premises by hand.....	30%		
	3. If mixing by power.....	60%		
	4. Labor (C. 3 $\frac{1}{2}$ ). ....			
	5. Power and Heat (C. 3 $\frac{1}{2}$ ). ....			
	6. If grinding, see Paint and Color Works.			
	7. If open lights, including open arc lights and (or) fire heat in stock rooms, see Appendix.			
	8. Incandescent electric lights not in vapor proof globes with keyless sockets, and swinging lights not also protected by wire guards in stock rooms.....	50%		
	(Not cumulative with charge 7.)			
702†‡	<b>Paint and Color Works</b> (dry colors only).....	50%	10%	D2
	1. Additional labor, power, heat, etc. (C. 2). ....			
	2. If power grinding.....	30%		
703†‡	<b>Paint and Color Works</b> (no naphtha used).....	140%	80%	D2
	1. Additional labor, power, heat, etc. (C. 4). (See charges 7 and 8, No. 701.)			

		1	2	3
704†*†	<b>Paint</b> and Color Works.....	160%	160%	D2
	Naphtha used, limited to one day's supply.			
1.	Additional labor, power, heat, etc. (C. 4½).			
	(See charges 7 and 8, No. 701.)			
705†*†	<b>Paint</b> and Color Works, with naphtha not limited to one day's supply.....	200%	320%	D2
1.	Additional labor, power, heat, etc. (C. 5).			
	(See charges 7 and 8, No. 701.)			
706 †	<b>Paint Shops</b> .....	50%	40%	D2
1.	Additional labor, heat, etc. (C. 3½).			
2.	If woodwork, see woodworking.			
707	<b>Paper</b> Warehouses, heavy, flat, news, wrapping and strawboard.....	5%	D2	
708	<b>Paper</b> Warehouses, miscellaneous and light...	10%	D2½	
709	<b>Paper</b> , wholesale, general stocks.....	5%	10%	D2½
	If ruling, cutting or other processes,			
1.	Labor (C. 2).			
2.	Power (C. 2).			
710	<b>Paper</b> Stocks (waste or cuttings) baled, no sorting .....	20%	40%	D3
711	* <b>Paper</b> Stocks (waste or cuttings) with sorting and baling.....	40%	80%	D3½
	1. Labor, power, heat, etc. (C. 4).			
712	<b>Paper</b> Bags (storage).....	10%	D3	
713	<b>Paper</b> Bag Factories.....	15%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
714	<b>Paper</b> Box Factories, see Box Factories (paper).			
715	<b>Paper</b> Carpet Linings; see Carpet Linings.			
716	<b>Paper</b> Envelope Stocks.....	5%	10%	D3
717	<b>Paper</b> Labels and Lithographs.....	5%	10%	D4
718	<b>Paper</b> Pattern Manufacturing.....	25%	40%	D3½
	1. Additional labor, power, heat, etc. (C. 3½).			
719	<b>Paper</b> Pattern Stocks (retail).....	5%	10%	D4
720	<b>Paper</b> Pattern Stocks (wholesale).....	10%	20%	D4
721	<b>Paper</b> (wall paper), Stocks.....	5%	10%	D3½
	If paints, see Paint and Oil Stores.			
722	<b>Paper</b> (waxed, transfer, blue print) Manufacturing .....	15%	20%	D3½
	1. Additional labor, power, heat, etc. (C. 3).			
723	‡ <b>Papier Mache</b> and Wax Work, Manufacturing..	25%	40%	D4
	1. Additional labor (C. 3½).			
	2. Power and heat (C. 3½).			
724	<b>Paste</b> Manufacturing.....	10%	10%	D2½
	1. Additional labor (C. 2).			
	2. Power and furnace (C. 2).			
725	<b>Patent</b> Medicine Stocks.			
	If non-inflammable ingredients.....	5%	10%	D3
	If ointments or inflammable ingredients....	10%	20%	D3
726	‡ <b>Patent</b> Medicine Factories, cold process, non-inflammable ingredients.....	15%	20%	D3
	1. Additional labor (C. 3).			
	2. Power and heat (C. 3).			
727†*†	<b>Patent</b> Medicine Factories, with inflammable ingredients, should be rated by special analysis.			
728	<b>Patterns</b> in use.....			D3
729	<b>Pawnbrokers</b> , jewelry only.....	3%	5%	D2½
730	<b>Pawnbrokers</b> , general, including second-hand clothing .....	10%	20%	D3
731	<b>Peanuts</b> . See Nuts.			
732	<b>Pencils</b> , Lead, Stocks of.....	5%	10%	D2

		<b>1</b>	<b>2</b>	<b>3</b>
733	<b>Penny</b> Arcades.....	10%		D3 $\frac{1}{2}$
	1. If photographing.....	10%		
	2. If pop corn roasting.....	5%		
	3. Shooting gallery, no charge.			
	4. Candy kettles, charge as (C. 2).			
734	<b>Perfumery</b> Stocks.....	3%	5%	D3
735	† <b>Perfumery</b> Manufacturing (cold process).....	15%	20%	D3
	1. Additional labor (C. 3).			
	2. Power and heat (C. 3).			
736	<b>Pharmaceutical</b> Laboratories. See Chemical Laboratories.			
737	<b>Phonograph</b> Stocks.....	5%	10%	
	Class stock other than records as.....			D3
	Class records as.....			D4
738	<b>Photograph</b> Galleries.....	5%	10%	D4
739	<b>Photographers</b> , Commercial.....	10%	20%	D4
	1. Labor (C. 3).			
740	<b>Photographers</b> , using celluloid in building.....	20%	40%	D4
741	<b>Photo-engraving</b> Establishments, process work..	15%	20%	D4
	1. Additional labor (C. 3).			
	2. Add for wet plate work.....	30%		
	If woodwork ,see Woodworking.			
742	<b>Photographs</b> (enlarging by electric light).....	10%	20%	D4
743	<b>Photo-gravure</b> Establishments, with printing...	25%	40%	D4
	1. Additional labor (C. 3½).			
744	<b>Photographers'</b> Supply Stocks.			
	No acids or chemicals kept outside of safe or vault.....	5%	10%	D4
745	<b>Photographers'</b> Supply Stocks.			
	Acids or chemicals not kept in safe or vault	10%	20%	D4
746	<b>Piano</b> Stocks.....	5%	10%	D3
	1. Labor, repairs (C. 3).			
747	<b>Pickles</b> , Catsups, Kraut, etc., Stocks.....	5%	10%	D2 $\frac{1}{2}$
748	<b>Pickles</b> , with bottling only.....	10%	10%	D2 $\frac{1}{2}$
	1. Additional labor (C. 2).			
749	† <b>Pickle</b> Factories (pickling in brine and barreling only) .....	5%	5%	D2 $\frac{1}{2}$
	1. Additional labor (C. 1).			
750	‡ <b>Pickle</b> and <b>Preserve</b> Factories.			
	a. Output packed in glass and boxed on premises .....	25%	40%	D2 $\frac{1}{2}$
	b. Output packed in tins, kegs or barrels...	15%	20%	D2 $\frac{1}{2}$
	1. Additional labor, power, furnaces, etc., with a (C. 3½) with b (C. 3).			
	2. If re-coopering or box making, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
	3. Varnishing or painting, occasional.....	20%		
	4. Varnishing or painting, regular.....	50%		
	5. Tin can making.....	10%		
	(Cumulative with charges under No. 1.)			
	6. If printing or lithographing on tin.....	10%		
751	<b>Picture</b> Frame Stores.....	10%	20%	D3
	1. Labor, (framing) (C. 3).			
752	‡*† <b>Picture</b> Frame Factories, with whitening, gilding and compo work only.....	50%	40%	D3
	1. If painting, finishing and (or) dipping..	50%		
	2. Additional labor, power, heat, etc., (C. 3½).			
	3. If dip tanks or power wood working, see Woodworking.			
753	<b>Picture</b> Mouldings, see Mouldings.			

		<u>1</u>	<u>2</u>	<u>3</u>
754	<b>Pipe</b> Manufacturing (smokers).....	15%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
755	<b>Pitch, Tar, etc.</b> (See Roofing Materials.)			
756	<b>Plaster</b> Images, Stocks.....	3%	5%	D4
757	† <b>Plaster</b> Images, Manufacturing.....	10%	10%	D4
	1. Additional labor, heat, etc., (C. 2).			
	2. Painting .....	30%		
758	<b>Plated</b> Ware Stocks.....	3%	5%	D2 1/2
	1. If repairing or manufacturing on small scale, not over 5 hands.....	10%		
	2. Power, furnaces, etc., (C. 2).			
	3. If buffing or polishing, see charges 14 or 15, Machine Shops.			
	If over 5 hands, see Plated ware Manufacturing.			
759	<b>Plated</b> Ware Manufacturing.....	10%	10%	D2 1/2
	1. Additional labor, power, heat, etc., (C. 2).			
	2. If buffing or polishing, see charges 14 or 15, Machine Shops.			
760	<b>Plumbers</b> and Steam Fitters, Supply Stocks....	3%	5%	D1 1/2
	1. Repairing on small scale, not over 5 hands .....	10%		
	2. Power, heat, etc., (C. 2).			
	3. If turning, drilling, boring, etc., is done, see Machine Shops.			
	NOTE: If over 5 hands, see Plumbers' Shops.			
761	<b>Plumbers'</b> Shops (no Stocks).....	10%	10%	D1 1/2
	1. Additional labor, power, heat, etc., (C. 2).			
	2. If turning, drilling, boring, etc., is done, see Machine Shops.			
762	<b>Plush</b> and Velvet Stocks, see Silk Goods.			
763	<b>Police</b> Stations. (See Jails.)			
764	<b>Polish</b> (stove, metal and furniture) Manufacturing.			
	a. No naphtha or other like combustibles or their compounds used.....	25%	40%	D2
	b. *Naphtha or other like combustibles or their compounds used (not over 1 barrel)	40%	80%	D2
	1. Additional labor, power, heat, etc. with a, (C. 3 1/2); with b, (C. 4).			
765	<b>Popcorn</b> Confections Manufacturing (no candy making) .....	15%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
766	<b>Post</b> Offices.....	5%	10%	D2
767	† <b>Poultry</b> Packing Establishments.....	50%	20%	D3
	1. Additional labor (C. 3).			
	2. Furnaces, heat, etc., (C. 3).			
	3. For candling by artificial other than electric light in metal-lined room add.....	10%		
	4. For candling by artificial other than electric light in the open.....	30%		
768	<b>Power</b> Houses (no cobs, wood, shavings or saw-dust fuel) .....	5%	5%	
	1. Additional labor, power, heat, etc. (C. 1).			
	If without machinery except boiler and boiler feed pump, give all contents same rate as building.			
	If with machinery other than electrical, class all contents.....			D1
	If with electrical machinery, class all contents .....			D2

1      2      3

769	<b>Preserving</b> Establishments (see Pickle and Preserving Works).			
770	<b>Printers' Ink</b> Manufacturing, see Ink (printing).			
771	† <b>Printer</b> Roller Manufacturing.....	25%	40%	D3
	1. Additional labor, power, heat, etc., (C. 3½).			
772	<b>Printers' Supply Stocks</b> .....	5%	10%	D3
773	† <b>Printing</b> , composing only, not over 10 compositors .....	5%	10%	D2
	1. Additional labor (C. 1).			
	2. Power, heat, etc., (C. 2).			
	Furnaces with Linotype machines may be waived.			
	3. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.			
	4. If can not approved or if over 1 gallon gasoline kept in building, see Appendix.			
774	<b>Printing</b> (private) with office, mercantile or industrial occupancies, not over 3 presses....	15%		
	(Increase one-fifth for each press over three up to double the above charge).			
	1. Power, heat, etc., charge by combustibility of main occupancy.			
	2. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.			
	3. If can not approved or if over 1 gallon gasoline kept in building, see Appendix.			
	4. Presses take same rate as other contents. (If cylinder press or over eight small presses, rate under 776, charging for power, heat, etc., according to combustibility of main occupancy, with minimum of (C. 3½)).			
775	<b>Printing</b> , small job, with not over 3 presses, or newspaper establishments.....	15%	20%	D2
	1. Additional labor, power, heat, etc., (C. 3).			
	(Charge for furnace with Linotype machine may be waived).			
	2. Stereotyping .....	10%		
	3. Electrotyping .....	10%		
	4. If ink regrinding.....	30%		
	5. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.			
	6. If can not approved, or if over 1 gallon gasoline kept in building, see Appendix.			
776	<b>Printing</b> , Job, with over 3 presses, or Printing and Book-binding Establishments.....	25%	40%	D3
	1. Additional labor, power, heat, etc., (C. 3½).			
	2. Stereotyping .....	10%		
	3. Electrotyping .....	10%		
	(Furnaces with Linotype machines may be waived).			
	4. If ink regrinding.....	30%		
	5. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.			
	6. If can not approved, or if over 1 gallon gasoline kept in building, see Appendix.			
777	<b>Provisions</b> (cured), Stocks of.....	3%	5%	D2
778	<b>Produce and Provisions</b> (storage).....	20%		D3
779	<b>Produce and Provisions</b> , Stocks.....	10%	20%	D3

780	<b>Produce</b> and Provisions on cold storage. (See Cold Storage Warehouses).				
781	<b>Public Halls</b> (see Halls).				
782	<b>Pulleys</b> (wood), Stocks.....	5%	10%	D2 $\frac{1}{2}$	
	1. Add for oiling.....	10%			
783	<b>Pumps</b> , Stocks of				
	a. Metal only.....	3%	5%	D1	
	b. Wood or metal and wood.....	5%	10%	D2	
790	<b>Queensware</b> and Glassware (no packing or unpacking) .....	5%	10%	D3	
	1. Labor, packing or unpacking (C. 3).				
	2. If no bins for packing materials.....	20%			
	3. If hay or straw stored in building in excess of 1 day's supply, grade combustibility by scale for hay in Feed Stores.				
797	<b>Racket</b> Stocks.....	10%	20%	D3	
798	<b>Radiators</b> (heating), Stocks of.....	3%	5%	D1	
	1. Labor, repairing on small scale, not over 5 hands .....	10%			
	If over 5 hands, see Plumbers' Shops.				
799	<b>Rag</b> Carpet Weaving (see Carpet Weaving).				
800	<b>Rags</b> , Baled (washed) and Tailors' Clippings (clean) on storage; no assorting or baling	20%	40%	D3 $\frac{1}{2}$	
801	<b>Rags</b> (Tailors'Clippings) (clean only) with assorting and (or) baling.....	40%	80%	D4	
	1. Additional labor, power, heat, etc. (C. 4).				

	1	2	3
802 * <b>Rags</b> , Baled (unwashed).....	40%	80%	D4
803 * <b>Rags</b> (with assorting and baling only).....	60%	160%	D4
1. Additional labor (C. 4½).			
2. Power (C. 4½).			
804 * <b>Rags</b> (with baling, cutting and dusting).....	80%	320%	D4
1. Additional labor (C. 5).			
2. Power (C. 5).			
805 <b>Railway</b> Salvage Warehouses.....	20%	80%	D3
806 <b>Railway</b> Supply Stocks (no waste or wooden goods) .....	3%	5%	D2
807 <b>Railway</b> Supply Stocks (general, with waste and wooden goods).....	10%	20%	D2
808 <b>Rattan</b> and Willowware Stocks.....	10%	20%	D3
809 † <b>Rattan</b> Goods Factory.....	25%	40%	D3
1. Additional labor (C. 3½).			
2. Power, furnaces, etc., (C. 3½).			
3. If singeing.....	50%		
When found with separate warehouse for storage of manufactured goods, class all contents as .....			D2
810 † <b>Rectifying</b> Establishments (cold process).....	15%	20%	D2
1. Additional labor, heat, etc., (C. 3).			
811 <b>Refrigerators</b> (ice chests), Stocks of.....	5%	10%	D2½
812 <b>Regalias</b> (Stocks of).....	5%	10%	D3
813 <b>Regalia</b> Manufacturing (see Sewing Risks).			
814 <b>Restaurants</b> .			
a. Lunch room with no cooking except coffee, tea or cocoa making.....	3%	5%	D3
b. If cooking, not over one stove, range or furnace .....	25%	10%	D3
For each stove or furnace over one, used for cooking, baking or laundering, increase above charge in first column one-fifth up to double the charge, counting each 5 fire pots, or fraction thereof in ranges, as one furnace.			
If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.			
1. If baking of bread and (or) pastry, charge for labor engaged in this work on scale of (C. 2).			
2. If steam laundry, charge for labor engaged in this work on scale of (C. 2).			
3. Dry rooms in connection with steam laundry, charge according to arrangement, (C. 2).			
4. Power (C. 2).			
815 <b>Roller</b> Polo Rinks (see Skating Rinks).			
816 <b>Roofing</b> Materials, felt, paper, pitch, etc.....	20%	40%	D2
817 <b>Rope</b> and Cordage Stocks, heavy (no twine)...	3%	5%	D1½
818 <b>Rubber</b> Goods. (See India Rubber).			
819 <b>Rubber</b> Stamp Manufacturing.....	10%	10%	D3
(If stencil or brand making, see Stencil, Stamp, Brand, Seal and Badge Manufacturing).			
1. Additional labor, power, furnaces etc., (C. 2).			

		<b>1</b>	<b>2</b>	<b>3</b>
820	<b>Rubber</b> Tire Stocks (no repairing).....	3%	5%	D1½
	1. If repairing on small scale, not over 5 hands .....	10%		
	2. Cement use or storage, gasoline cleaning or washing, see Rubber Tire Repair Shops, charges 2 to 5.			
	If over 5 hands, see Rubber Tire Repair Shops.			
821	<b>Rubber</b> Tire Repair Shops.....	10%	10%	D1½
	1. Additional labor, power, heat, etc. (C. 2).			
	2. If combustible cement used.....	30%		
	3. If over 1 day's supply of combustible ce- ment, see charges for gasoline storage in Appendix.			
	4. Gasoline washing and (or) cleaning, not over 1 gallon gasoline in approved safe- ty can .....	10%		
	5. Gasoline washing and (or) cleaning except in approved safety cans.....	100%		
822	<b>Rugs.</b> (See Carpets and Rugs, or Oriental Rugs.)			
827	<b>Saddlery</b> and Harness. (See Harness.)			
828	<b>Safes</b> , Iron, Stocks of.....	3%	5%	D1½
	1. Repairing on small scale, not over 5 hands .....	10%		
	2. Power, heat, etc., (C. 2).			
	If over 5 hands, see Machine Shops.			
829	<b>Sail Makers.</b> (See Sewing Risks.)			
830	<b>Sail</b> and Rigging Lofts.....		10%	D2½
	If Sewing, see Sewing Risks.			
831	<b>Saloons.</b>			
	a. With or without billiards or bowling, no restaurant .....	5%	10%	D2½
	b. With hot lunch.....	10%	10%	D2½
	c. Saloons with restaurants, see restaurants. (Furniture and Fixtures of fancy saloons should class as D. 3).			
832	<b>Saloon</b> and Bar Furniture and Fixtures, Stocks of, see Furniture.			
833	<b>Salt Fish.</b> (See Fish, cured.)			
834	<b>Saltpeter</b> Bag Cleaning.....	40%	80%	D2½
	1. Additional labor, power, heat, etc. (C. 4).			
835	<b>Saltpeter</b> Storage.....		80%	D3
836	<b>Salt</b> Storage.....		5%	D2
837	<b>Sand-paper</b> , Stocks of.....		5%	D3
	a			

		1	2	3
838	<b>Sanitariums</b> , private .....			D2
	1. Lodging only, not over 10 rooms.....	10%		
	2. Lodging only, not over 20 rooms.....	20%		
	3. Cooking for patients, not over one stove, range or furnace .....	15%		
	For each stove, range or furnace over 1, used for cooking, increase above charge one-fifth up to double the charge, count- ing each five fire pots, or fraction thereof in ranges, as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one- half.			
	4. If over 20 rooms, see Hotels (Family).			
839	<b>Sash</b> , Door and Blinds. (See Blinds, Sash and Door).			
840	<b>Sausage</b> Making. (See Butcher Shops.)			
841	<b>Saws</b> , Stocks of .....	3%	5%	D3
842	<b>Scales</b> , Stocks of .....	3%	5%	D2
	1. Repairing on small scale, not over 5 hands .....	10%		
	2. Power, heat, etc. (C. 2). If over 5 hands, see Machine Shops.			
843	* <b>Scenery</b> Storage .....	20%	80%	D4
844	<b>Schools</b> . (See Academies.)			
845	<b>School Supply</b> Stocks .....	10%	20%	D2½
846	<b>Seal</b> Manufacturing. (See Stencil Manufac- turing.)			
847	<b>Second-hand</b> Stocks. (See Clothing and Furni- ture, second-hand.)			
848	<b>Seed</b> Stores .....	5%	10%	D4
849	<b>Seeds</b> , Flax, Hemp, Beans, and other field seeds (on storage) .....			10% D2
	1. If cleaning by hand, with seed risks, labor (C. 2). .....			
	2. If cleaning by power, with seed risks, not over two machines.....	25%		
	a. Power (C. 3½). .....			
	3. If over two power cleaners.....	25%	40%	
	a. Additional labor, power, etc. (C. 3½). .....			
850	<b>Sewing</b> Machine Stocks.....	3%	5%	D2½
	1. If repairing on small scale, not over 5 hands (no woodworking).....	10%		
	2. Power, heat, etc. (C. 2). If over 5 hands, see Machine Shops.			
852	† <b>Sewing</b> Risks, embracing all risks where cut- ting and (or) sewing is done by hand or sewing machines on textile fabrics, including awnings, tents, flags, bags, tarpaulins, gar- ments, etc., excepting Milliners, Dressmakers and Tailors, which see:			
	a. Woolens .....	10%	10%	D2
	b. Silks and Elastic goods.....	10%	10%	D3
	c. Linens, Cottons, and other vegetable fab- rics .....	15%	20%	D2½
	d. Shoddy, sweat-shop goods, or cheap dyed cottons (overalls, etc.) .....	25%	40%	D2½
	Machinery and Fixtures, class as.....			D2½
	NOTE: When two or more kinds of above are used, the graded charges that follow should be made by the grade of highest combustibility.			

1.	Additional labor should be charged as follows:			
a.	Cutting only, classes <i>a</i> and <i>b</i> (C. 1) : class <i>c</i> (C. 2) : class <i>d</i> (C. 3).			
b.	Cutting and making, classes <i>a</i> and <i>b</i> (C. 2) : class <i>c</i> (C. 3) : class <i>d</i> (C. 3½).			
2.	Power, heat, etc., classes <i>a</i> and <i>b</i> (C. 2) : class <i>c</i> (C. 3) : class <i>d</i> (C. 3½).			
3.	If steam laundry charge for labor engaged in this work on scale of (C. 2). (If dry room in connection with steam laundry charge according to arrangement, (C. 2)).			
4.	If dyeing .....	20%		
5.	If gasoline cleaning, see charges 4, 5 and 6 under Laundries (steam).			
6.	Painting, varnishing, tarring or oiling in building .....	100%		
7.	Storage of second-hand awnings..... And class all contents except Machinery and Fixtures as..... (If leather sewing, see Leather Sewing Risks.)	30%	D3	
853	<b>Shellac</b> Varnish Making..... 1. Additional labor, power, heat, etc. (C3½).	25% 40%	D2	
854	<b>Sheet Metal Work.</b> (See Machine Shops.)			
855	<b>Ship</b> Chandler Stocks:			
a.	Without oiled clothing and not over 20 bales of oakum .....	10% 20%	D2	
b.	With oiled clothing and (or) not over 100 bales of oakum.....	20% 40%	D2	
c.*	With over 100 bales of oakum.....	40% 80%	D2	
1.	Labor, power, heat, etc., with <i>a</i> (C. 3), with <i>b</i> (C. 3½), with <i>c</i> (C. 4).			
2.	Picker, hand .....	50%		
3.	Picker, power .....	100%		
	(Charges 2 and 3 may be reduced one-half if in a metal-lined room with steam jet.)			
4.	If painting, varnishing, tarring or oiling of clothing done in building.....	100%		
856	<b>Shirts</b> , Collars and Cuffs, Stocks.....	5% 10%	D2	
857	<b>Shirt</b> Making (see Sewing Risks).			
858	<b>Shoemaker</b> Shops (see Cobblers).			
859	<b>Shoes</b> (see Boots and Shoes).			
860	<b>Shoe</b> Factories (see Leather Sewing Risks).			
861	<b>Shooting</b> Galleries .....	10%	D2	
862	<b>Show</b> Cases, Stocks of.....	3% 5%	D3	
863	<b>Show</b> Case Factories.			
	If woodwork, see Woodworking. If metal work, Machine Shops.			
864	<b>Sign</b> Manufacturing (glass) .....	10% 10%	D3	
	1. Additional labor (C. 2).			
	2. Power, heat, etc. (C. 2).			
	3. Painting .....	30%		
865	<b>Sign</b> Manufacturing (metal) .....	10% 10%	D2	
	1. Additional labor (C. 2).			
	2. Power, heat, etc. (C. 2).			
	3. Painting, enameling or lacquering.....	30%		
866	<b>Sign</b> Manufacturing (large) Wood, Metal, Glass, no power woodworking machines, except saws, nailers and boring machines, and not over 1 pony planer .....	25% 40%	D2 ½	
	1. Additional labor, power, heat, etc. (C.3½).			
	2. Painting .....	50%		
	3. If woodworking in excess of above, see Woodworking.			

		<b>1</b>	<b>2</b>	<b>3</b>
867	<b>Sign</b> Shops (not over 2 hands).....	30%		D2
	If over 2 hands, see Paint Shops.			
868	<b>Sign</b> Writers and Designers.....	15%		D3
869	<b>Silk</b> Goods, open retail stocks.....	5%	10%	D3
870	<b>Silk</b> Good, wholesale.....	5%	10%	D2½
871	<b>Silk</b> Twisting and Spooling.....	10%	10%	D3
	1. Additional labor, power, heat, etc. (C. 2). Machinery and Fixtures, class as.....			D2½
872	<b>Silverware</b> , solid.....	3%	5%	D2
873	† <b>Skating</b> or Roller Polo Rinks.....	100%		D2
	(When halls or mercantile buildings are so occupied, above charge may be reduced one-half. Halls rented for occasional skating should be rated as Halls.)			
874	<b>Slot</b> Machines (see Automatic Machines).			
875	<b>Smokers'</b> Sundries, Stocks of (see Cigars and Smokers' Articles).			
876	<b>Snuff</b> Factories (see Tobacco Factories).			
877	<b>Soap</b> Stocks.....	5%	10%	D1½
878	‡ <b>Soap</b> Factories, Toilet, cold processes only.....	30%	20%	D2
	1. Additional labor (C. 3). 2. Power, heat, etc. (C. 3). 3. If candle making .....			
879	‡*† <b>Soap</b> Factories .....	100%	80%	D2
	1. Additional labor (C. 4). 2. Power, heat, etc. (C. 4). 3. If candle making .....			
880	<b>Soda</b> Ash, in bags or barrels.....	5%		D1½
881	<b>Soda</b> Fountains, Stocks of.....	3%	5%	D2½
882	<b>Soda</b> Water Factories.....	10%	10%	D2
	1. Additional labor (C. 2). 2. Power (C. 2).			
883	‡‡ <b>Spice</b> Mills, grinding, mixing and packing.....	50%	40%	D2½
	1. Additional labor (C. 3½). 2. Power, heat, etc. (C. 3½). 3. Power (C. 3½).			
884	<b>Spice</b> Stocks.....	5%	10%	D2½
	1. Grinding, not over one mill..... 2. Grinding, not over two mills..... (If over two mills, see Spice Mills.) 3. Power (C. 3½).	30%	36%	
885	<b>Sponges</b> , Stocks of.....	3%	5%	D2
886	<b>Sporting</b> Goods, Fire Arms, etc.....	5%	10%	D3
887	<b>Sporting</b> Goods Manufacturing.....	25%	40%	D3
	No power woodworking machines, except saws, nailers, boring machines, and not over one planer (either pony or block-planer-and-trimmer). 1. Additional labor, power, heat, etc. (C. 3½). If power woodworking in excess of above, see Woodworking.			
888	† <b>Stables</b> , private or industrial, including brewery, mill, delivery and mercantile: a. In buildings with mercantile occupancy, not over 3 stalls.....	10%		
	1. Give contents same rate as other contents of same ownership. If stable is separate occupancy, class as..			D2
	2. If over 3 stalls, class as b.			
	b. In separate buildings, not over 10 stalls.,	30%	20%	D2
	c. In separate buildings. not over 20 stalls,..	40%	40%	D3
	1. Star if over 100 bales hay on premises. 2. If over 30 stalls, class as Stables, Bus, Express, etc.			

3.	If automobiles kept, not over 2 machines, with warranty that no charging or repairing of machines is done in building.	30%	
4.	If automobile repairing and (or) charging, see charges under Automobile Stocks. If over 2 machines, see Automobile Stocks.		
889*†	<b>Stables</b> , Bus, Express, Feed, Hotel, Dairy, Breeding, Stock, Transfer and Veterinary (not over 50 stalls)	60%    40%	D3
1.	For each additional 50 stalls or greater part thereof	20%	
2.	If automobiles stored, see charge 2 under Stables, Livery, Boarding and Sale.		
890*†	<b>Stables</b> , Livery, Boarding and Sale (not over 50 stalls)	100%    40%	D3
1.	For each additional 50 stalls or greater part thereof	20%	
2.	Automobile Storage: a. Not over 2 machines, with warranty that no repairing or charging of machines is done in building..... 1. Repairing and (or) charging, see Charges under Automobile Stocks. b. If over 2 machines, see Automobile Garages.	30%	
	If chopping or grinding in stables, see scale with Feed Stores.		
	Live and rolling stock with 888-9-90, on ground floor, take building rate, and if building is exposed, treat as removable.		
	If not on ground floor, live and rolling stock to take rate of other contents.		
	If part on ground floor take average between building rate and rate of live and rolling stock in other stories.		
891	<b>Stamp</b> Manufacturing (see Rubber Stamp Manufacturing or Stencil Manufacturing).		
892	<b>Starch</b> in original packages.....	3%	5%    D2
893	<b>Stationery</b> . (See Book Stores.)		
894	<b>Statuary</b> and High Art Stocks (no packing or unpacking) 1. Labor, packing or unpacking (C. 3). 2. If no bins for packing materials..... 3. If hay or straw stored in building in excess of 1 day's supply, grade combustibility by scale for hay in Feed Stores.	5%    10% 20%	D4
895	<b>Steam</b> Fitters. (See Plumbers.)		
896	<b>Steel</b> Stocks. a. High-grade Tool ..... b. Low-grade ordinary ..... c. Mixed high and low grade..... 1. Tempering with oils (not over 5 hands).. 2. Power, heat, etc. (C. 2).	3%    5% 3%    5% 3%    5% 10% 10%	D2½ D1 D2
897 †	<b>Stencil</b> , Stamp, Brand, Seal and Badge Manufacturing 1. Additional labor, power, heat, etc. (C. 2). 2. Painting, enameling, lacquering or dipping 3. Buffing or polishing with approved metal blower system, outside exhaust..... (No charge for one small wheel for occasional use.) 4. Buffing or polishing without approved metal blower system, with outside exhaust Increase one-fifth for each machine over 3 up to double the charge. (No charge for one small wheel for occasional use.)	20%    10% 30% 10% 50%	D2½

		<b>1</b>	<b>2</b>	<b>3</b>
5.	Dip Tank, with cover.....	20%		
6.	Dip Tank, without cover..... If woodworking, see Woodworking. (Increase charges 5 and 6 one-fifth for each additional tank up to double the charge.)	40%		
	NOTE: If dipping in materials thinned with benzine, naphtha, or other like volatile combustibles or their compounds, double charges 5 and 6.			
898	<b>Stone</b> Cutting and Sawing..... 1. Additional labor, power, heat, etc. (C. 1).	5%	5%	D1
899	<b>Stoneware</b> .....	3%	5%	D2
	1. Labor (packing) (C. 3). 2. No closed bins for packing materials.....	20%		
900	<b>Stoves</b> and Stove Castings (Warehouse).....	5%	D1½	
901	<b>Stove</b> Stocks .....	3%	5%	D1½
	1. If blacking with materials thinned with benzine, or other like volatile combustibles .....	10%		
902	<b>Stove</b> and Tinware Stocks..... 1. Labor (C. 1). 2. Furnaces (C. 1).	3%	5%	D2
903	<b>Strawboard</b> , Warehouses .....	5%	D2	
904	<b>Straw</b> Goods Stocks .....	10%	20%	D4
905	<b>Studios</b> , Painters' and Sculptors'.....			D4
906	<b>Studios</b> , Teachers', Music, Elocution, etc.....			D2
907	<b>Sugar</b> Stocks (see Syrup and Sugar).			
908	<b>Surgical</b> Instruments (see Instruments).			
909	<b>Suspender</b> Factories .....	10%	10%	D3
	1. Additional labor, power, heat, etc. (C. 2). Machinery and Fixtures, class as.....			D2½
910	<b>Syrup</b> and Sugar Stocks.....	3%	5%	D1½
911	<b>Syrup</b> and Sugar, storage.....		5%	D1½
912	+\$ <b>Syrup</b> Refining..... 1. Additional labor, heat, etc. (C. 3). 2. If re-coopering or box making, no power woodworking machines, except saws, nailers and (or) boring machines..... 3. Occasional varnishing or painting..... 4. Varnishing or painting, regular..... 5. Tin Can making..... (Cumulative with charges under No. 1.) 6. If printing or lithographing on tin.....	15%	20%	D2
			10%	

		<b>1</b>	<b>2</b>	<b>3</b>
919	<b>Tack Stocks</b> .....	3%	5%	D3
920	<b>Tailor Shops</b> , with cutting, making, pressing, and (or) cleaning (not over 10 hands)..... 1. Furnaces (C. 2). If over 10 hands, see Sewing Risks. 2. Gasoline used for cleaning, not over 1 gal- lon gasoline in approved safety cans, no charge. 3. If can not approved, or if over 1 gallon gasoline kept in building, see Appendix.	10%	10%	D2
921	<b>Tailors' Trimmings</b> , wholesale.....	5%	10%	D2½
922	<b>Tallow</b> , Grease and Wax Mixing. (See Grease Risks.)			
923	<b>Tanners' Supplies</b> .....	5%	10%	D2
924	<b>Tarpaulin</b> , Manufacturing. (See Sewing Risks.)			
925	‡ <b>Taxidermists</b> .....	20%	10%	D4
926	<b>Tea</b> , Coffee and Spice Stocks. (See Coffee, etc.)			
927	<b>Teas</b> , Stocks of, in original packages..... 1. Labor, packing.....	5% 10%	10%	D2
928	<b>Telegraph</b> Offices, small (1 or 2 operators)....			D2
929	<b>Telegraph</b> Offices, large central.....	5%	10%	D2
930	<b>Telegraph</b> Supply Stocks .....	5%	10%	D2
931	<b>Telephone</b> Offices .....	5%	10%	D3
932	<b>Tent Making</b> . (See Sewing Risks.)			
933	<b>Theatres</b> . (See Halls.)			
934	<b>Thread</b> Stocks .....	5%	10%	D3
935	<b>Tile</b> , encaustic, mosaic and marble, stocks of.. 1. Labor, designing (C. 1).	3%	5%	D2
936	<b>Tile Pipe</b> (drainage and chimney), storage....		5%	D1
937	<b>Tin</b> , in ingots or pigs (see Brass, Copper, Alum- inum, Tin and Lead in ingots or pigs).			
938	<b>Tin Plate</b> , wholesale.....	3%	5%	D3
939	<b>Tinware Stocks</b> (no shop work)..... 1. Labor, shop work, not over 5 hands (C. 2) (no charge for 2 hands). 2. Power, heat, etc. (C. 2). 3. If over 5 hands, see Machine Shops.	3%	5%	D3
940	<b>Tin Shops</b> (not over 5 hands)..... 1. Power, heat, etc. (C. 2). If over 5 hands, see Machine Shops.	10%	10%	D3
941	<b>Tobacco</b> , Cigar Manufactories. (See Cigar Fac- tories.)			
942	‡ <b>Tobacco</b> (plug), in original packages (storage)..	5%		D2
943	‡ <b>Tobacco</b> , domestic, in packages.....	3%	5%	D3
944	‡ <b>Tobacco</b> , leaf in bales or imported tobacco.....	3%	5%	D3½
945	‡ <b>Tobacco</b> Factories (fine cut)..... 1. Additional labor (C. 4). 2. Power, heat, etc. (C. 4). Machinery and Fixtures, class as.....	40%	80%	D3½
946	‡ <b>Tobacco</b> (Snuff) Manufactories..... 1. Additional labor (C. 3½). 2. Power, heat, etc. (C. 3½). Machinery and Fixtures, class as.....	25%	40%	D4
947	‡‡ <b>Tobacco</b> Factories (plug). Rate by analysis or special schedule, if any.			D2
948	<b>Toilet Goods</b> , Stocks .....	5%	10%	D3
949	<b>Toilet</b> and Jewelry Case Manufacturing. (See Jewelry Case Manufacturing.)			
950	<b>Toys</b> , Notions and School Stationery (small retail) .....	5%	10%	D3

		<b>1</b>	<b>2</b>	<b>3</b>
951	<b>Toys</b> and Notions (large and retail bazaars) .....	10%	20%	D3½
952	<b>Trimming</b> Factories. (See Sewing Risks.)			
953	<b>Trunk</b> and Valise Stocks.....	5%	10%	D2½
	1. Setting up or repairing on small scale, no woodworking .....	10%		
	2. Trimming .....	20%		
	(If over 5 hands, see Trunk Factories.)			
954	<b>Trunk</b> and Valise Factories, strictly leather (see Leather Sewing Risks).			
955	<b>Trunk</b> Factories (with woodwork), see Wood- working.			
956	<b>Twine</b> and Cordage Stocks. (See also Rope Stocks, heavy.) .....	10%	20%	D2
957	<b>Twine</b> and Cordage (storage). (See Rope Stocks, Heavy.) .....		20%	D1½
958	<b>Type</b> Stocks, Printers' .....	3%	5%	D2
959††	<b>Type</b> Foundries .....	30%	10%	D2
	1. Additional labor (C. 2).			
	2. Power, Furnaces, etc. (C. 2).			
960	<b>Typewriter</b> Stocks and Supplies.....	3%	5%	D3

969	<b>Umbrella</b> Manufacturing .....	15%	20%	D2½
	1. Additional labor, power, heat, etc. (C. 3).			
970	<b>Umbrella</b> Stocks .....	5%	10%	D2½
	1. Labor (repairs) (C. 2).			
971	<b>Undertaking</b> Establishments .....	5%	10%	D2½
	1. Labor on box work, if any (hand).....	10%		
972	<b>Undertakers'</b> Supply Stocks .....	5%	10%	D2½
973	<b>Upholsterers'</b> Stocks (no moss, tow, or ex- celsior) .....	5%	10%	D3
	If moss, tow, excelsior, etc., charge by scale for Feed Stores, with hay.			
974	<b>Upholstering</b> or Furniture Repair Shops (small)	25%	40%	D3
	1. Additional labor, power, heat, etc. (C. 3½)			
	2. Varnishing or painting, regular.....	50%		
	3. Varnishing or painting, occasional.....	20%		
	4. If small amount of mattress making.....	30%		
	(No charge if hair or cotton felt only is used.)			
	5. If picker (hand).....	50%		

975†* <b>Upholstering</b>	Establishments, using moss, tow, excelsior or other like inflammables .....	100%	80%	D3
1.	Additional labor (C. 4).			
2.	Picker (hand) .....	50%		
3.	Picker (power) .....	100%		
4.	Power (C. 4). (Charge for picker may be reduced one-half if in a metal-lined room with steam jet.)			

984 **Vacant Buildings** (incomplete). (See Builders' Risks.)

985 **Vacant Buildings** (complete).

As a rule should take rate of last occupancy. In no event while vacant should charge in Column 1 be less than 15% for each vacated occupancy on ground floor, or less than one-half the total charges of its last special hazard occupancy.

NOTE: When rater has definite means of knowing immediately when building is occupied, above charge may be reduced to 5% for each vacated ground floor occupancy.

986 **Valves, Iron and Brass, Stocks**..... 3% 5% D1

987 **Varnish, Shellac.** (See Shellac Varnish.)

988 \***Varnish Warehouses (bulk)**, stored exclusively in approved steel or iron tanks..... 40% D2  
See charges 3 and 4 under 990.

989 **Varnish Stocks (no processes)** (not over 15 barrels, not including dry colors and stock in original packages not exceeding 10 gallons capacity) ..... 20% 40% D2  
1. Varnish drawing ..... 30%

2. If over 15 barrels or if mixing, see next item.

990 \***Varnish Stocks, large**..... 20% 40% D2  
1. Labor (mixing) (C. 3½).

2. Power (C. 3½).

3. Open lights, including open arc lights and (or) fire heat in stock rooms..... 100%

4. Incandescent electric lights not in vapor-proof globes with keyless sockets, and swinging lights not also protected by wire guards .....

(Not cumulative with charge 3.)

5. If mixing on premises by hand..... 30%

6. If mixing on premises by power..... 60%

7. Varnish drawing .....

(Not cumulative with 5 or 6.)

991††\*Varnish Factories.

a.* <i>Boiling and Chimney House</i> .....	200%	320%	D2
1. Additional labor (C. 5).			
b. * <i>Thinning and Mixing House with benzine or naphtha limited to one day's supply</i> ..	160%	160%	D2
2. Additional labor, power, etc. (C. 4½).			
c. * <i>Thinning and Mixing House with turpen- tine</i> .....	140%	80%	D2
3. Additional labor, power, etc. (C. 4).			
4. If open lights, including open arc lights, and (or) fire heat in any of above.....	100%		
5. Incandescent electric lights not in vapor proof globes with keyless sockets, and swinging lights not also protected by wire guards .....	50%		
(Not cumulative with charge 4.)			
d. * <i>S:orage House for varnish</i> .....		40%	D2
d. <i>Storage House for gum</i> .....		5%	D2

992 Vegetables (see Markets).

993 Veneer Stocks .....	10%	20%	D2½
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994 Vinegar and Cider Stocks. (See Cider.)

995 ‡Vinegar Factories, cider vinegar only.....	15%	20%	D2½
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1. Additional labor (C. 3).			
2. Power, heat, etc. (C. 3).			
3. If re-coopering or box making, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
4. Varnishing or painting, occasional.....	20%		
5. Varnishing or painting, regular.....	50%		

996††Vinegar Factories .....	100%	40%	D2½
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1. Additional labor (C. 3½).			
2. Power, heat, etc. (C. 3½).			
3. If re-coopering or box making, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
4. Varnishing or painting, occasional.....	20%		
5. Varnishing or painting, regular.....	50%		

1004 Wagon Repositories. (See Carriage and Wagon  
Repositories.)

1005 Wall Paper Factories.....	40%	80%	D3½
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1. Additional labor, power, heat, etc. (C. 4).			
2. If block repairing or making, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
3. Dry Rooms, charge according to arrange- ment (C. 4). See Appendix.			

1006 Wall Paper Stocks. (See Paper, Wall.)			
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	1	2	3
1007 <b>Warehouses.</b> (See General Storage Warehouses.)			
1008 <sup>†</sup> <b>Washing</b> Compound Manufacturing (Lye, Soda and Chloride of Lime Packing).....	30%	10%	D2
1. Additional labor, power, heat, etc. (C. 2).			
1009 <b>Watches.</b> (See Jewelry.)			
1010 <b>Waterworks</b> (no cobs, wood, shavings or saw-dust fuel) .....	5%	5%	D1
1. Additional labor, power, heat, etc. (C. 1). If with electrical machinery, class all contents as .....			D2
1011 <b>Wheelwrights.</b> (See Blacksmith and Wagon Shops.)			
1012 <b>Whips</b> , Stocks of.....	5%	10%	D2
1013 <b>Whip</b> Manufacturing .....	15%	20%	D2 $\frac{1}{2}$
1. Additional labor, power, heat, etc. (C. 3). 2. Varnishing .....	30%		
1014 <b>Whiskey</b> (see Liquors, wholesale).			
1015 <b>Willow</b> Ware Stocks.....	10%	20%	D3
1016 <b>Willow</b> Ware Making (see Basket Making.)			
1017 <b>Window</b> Glass (see Glass).			
1018 <b>Window</b> Shade Stocks (cloth).....	5%	10%	D2 $\frac{1}{2}$
1. Labor (cutting, fitting, decorating, etc.) (C. 2). 2. Power (C. 2).			
1019 <sup>‡</sup> <b>Window</b> Shade (cloth) Manufacturing.....	40%	80%	D2 $\frac{1}{2}$
1. Additional labor (C. 4). 2. Power, heat, etc. (C. 4). 3. Refinishing, no benzine..... (Cumulative with 4.) 4. Refinishing or cleaning with benzine.....	50%	50%	
1020 <b>Wines</b> and Liquors (see Liquors).			
1021 <b>Wire</b> Stocks and Wire Goods.....	3%	5%	D2
1022 <b>Wire</b> Workers.			
a. Cold metal work only.....	5%	5%	D2
b. Metal work other than cold.....	10%	10%	D2
1. Additional labor, power, heat, etc., with a (C. 1), with b (C. 2). 2. If Painting..... (If woodworking, see Woodworking.)	30%		
1023 <b>Wood</b> Carpet and Flooring Stocks.....	5%	10%	D2 $\frac{1}{2}$
1024 <b>Wood</b> Engraving (see Engraving, Wood).			
1025 <b>Wood</b> Fibre Ware, Stocks.....	5%	10%	D2
1026 <b>Wood</b> Mantels (See Mantels, Wood).			
1027 <b>Wood</b> Pulleys (see Pulleys).			
1028 <b>Woodenware</b> Stocks, without brooms.....	10%	20%	D2 $\frac{1}{2}$
1029 <b>Woodenware</b> (without brooms), large storage warehouses .....	20%	40%	D2 $\frac{1}{2}$
1030* <b>Woodenware</b> Stocks, with brooms.....	20%	40%	D2 $\frac{1}{2}$
1031 <sup>‡</sup> <b>Woodworking</b> , not connected with other industrial processes, nor otherwise provided for in Alphabetical List.			
NOTE: Where an occupancy listed elsewhere in Alphabetical List is classed under this item, the damageability of such occupancy should apply.			
a. Woodworking, hand and (or) power. No power machines except saws, nailers, boring machines, and not over one planer (either pony or block-planer-and-trimmer) (C. 3 $\frac{1}{2}$ ).....	25%	40%	D2
(This item does not include carpenter, cabinet, cooper, upholstering or pattern shops.)			

b. Carpenter, Cabinet, Cooper or Pattern Shops (star if with power machines, except saws, nailers, boring machines, one pony planer and one block-planer-and-trimmer) (C. 4).....	40%	80%	D2
c.*Same as b, with more than two power woodworking machines (excepting saws, boring machines and (or) nailers), provided with approved metal blower system (C. 4).....	40%	80%	D2
d.*Same as c, without approved metal blower system (C. 4½).....	60%	160%	D2
1. Additional labor, power, heat, etc., according to combustibility as above. NOTE: In cooperage works, open fireplace and each patent metal barrel heater should be charged for as an independent furnace.			
2. Occasional painting and (or) varnishing.	20%		
3. Painting, varnishing and (or) dipping (regular)	50%		
4. Dip Tank, with cover (cumulative with charge 3).....	20%		
5. Dip Tank, without cover, (cumulative with charge 3).....	40%		
NOTE: If dipping in materials thinned with Benzine, Naphtha or other like volatile combustibles or their compounds, double charges 4 and 5. Increase one-fifth for each tank over one, up to double the charge.			
6. If open heat devices or lights in room with power woodworking except saws, boring machines and (or) nailers and (or) painting or dipping, not less than.....	50%		
7. <i>Shavings Vaults (inside main buildings).</i> The following charges apply only to occupancy items c and d.			
a. Vault brick, arched or with parapetted fire walls through roof, cut off by approved fire door with automatic cut-off in metal duct.....	10%		
b. Vault brick, not arched or parapetted through roof with approved fire door and automatic cut-off in metal duct...	30%		
c. Vault brick, not arched or parapetted through roof, and without approved fire door or automatic cut-off in duct.....	50%		
d. Vault (frame) in main building, or no vault and wood refuse used for fuel without approved automatic feed and cut-off .....	100%		
e. If no approved steam jet with control valve outside of vault, increase any of above vault charges one-third.			

1032 **Woodworking** connected with other industrial processes, unless otherwise provided for in Occupancy List.

- When woodworking, either on *job repairs* in connection with mercantile stocks or *auxiliary work* in connection with industrial risks, is found, if not over five hands engaged in the work and no power machines except saws, nailers and (or) boring machines, occupancy should be rated on its own combustibility as stated in Alphabetical List and regular charge of 30% applied, and in addition the hands so employed should be included with other workmen in figuring the total labor charge. (See page 14, Appendix).

NOTE: When only circular saw is used for occasional work without carpenter bench or other hand or power woodworking, above charge may be reduced to 10%. When box-nailing only is done, charge may be waived, but hands engaged in such work should be included in the charge for labor.

2. When woodworking in excess of No. 1 is found with occupancies of combustibility lower than the preceding classification (1031 *a* to *d*), the woodworking charges under 1031 in columns 1 and 2 apply the same as for separate occupancy, in addition to the main occupancy charges. The damageability of main occupancy should apply to all.
3. When woodworking in excess of No. 1 is found with occupancies of combustibility equal to or higher than the preceding classification (1031 *a* to *d*), occupancy should be rated on its own combustibility as stated in Alphabetical List, and regular charge of 30% applied for woodworking. The hands so employed should be included with other workmen in figuring the total labor charge.
4. If forging is found in same room with woodworking, After Charge should be applied at discretion for unsafe conditions.

5. *Painting and (or) Dipping.*

Rooms or divisions with standard cut-off, occupied solely for painting and (or) dipping wooden goods, or for drying same by natural air, should grade as follows:

- a.* †No Naphtha or other like volatile combustibles, or their compounds used (C. 3½) ..... 50% 40% D2
- b.* \*†Naphtha or other like volatile combustibles or their compounds used (C. 4) ..... 70% 80% D2
1. Additional labor, heat, etc., Section *a*, (C. 3½); *b*, (C. 4).
2. Dip Tank, with cover..... 20%
3. Dip Tank, without cover..... 40%

NOTE: If dipping in materials thinned with Benzine, Naphtha or other like volatile combustibles or their compounds double charges 2 and 3.

Increase one-fifth for each tank over one, up to double the total charge.

4. If open heat devices or lights in room... 50%

1033	Wool Storage (no tallow or grease).....	5%	D1½
	1. Labor (assorting) (C. 2).		
	2. If with grease, see Appendix.		

1034 Woolen Goods.....

3% 5% D1½

1035 Wrapper Factories (see Sewing Risks).

1045	<b>Yarns</b> , Stocks of.....	3%	5%	D1½
1046	‡ <b>Yeast</b> Factories .....	25%	40%	D3
	1. Additional labor (C. 3½). 2. Power, heat, etc., (C. 3½).			
1047	<b>Yeast</b> Warehouse.....		10%	D3
	1. Labor (packing) (C. 2).			

## TABLE OF CREDITS.

### Structural Features.

The following credits are percentages of *Occupied Building Rate* and should be deducted before giving credit for protective features.

a. If all floorways and their supports class as D, with retinues d (see page 12).....	Deduct 20%
b. If all floorways and their supports class as D, with retinues inferior to d, or if all floorways and their supports class as C with retinues of all grades (see page 12)....	Deduct 10%
c. When a building with a basement or over one story high has a roof of ordinary rafter and roof board construction, reduce credit a five points or b three points.	
d. If roof boards less than 3-inch splined plank and (or) roof timbers are less than 6 x 6 inches, reduce credit a two points (not cumulative with c).	
e. If posts, beams or girders less than 6 x 6 inches, or of cast iron or steel not properly protected, or if strap iron stir- rups, reduce credit b four points.	
f. If combustible partitions, reduce credit a or b three points.	
g. When ground floor of a building without basement is non- combustible .....	Deduct 5%

### Protective Features.

The following credits are percentages of Occupied Building Rate after credits for structural features, if any, have been deducted, and should be deducted before adding differential for contents:

Note: *Partial Protection.* When a partial tenant in a building maintains in his premises the protective features required by sections a, c, d, e or f, the credits stated may be applied to the estimate of the tenant only, in the proportion that his floor area bears to entire floor area of building.

a. Inside Standpipe and hose attached (approved ar- rangement and water supply).....	Deduct..... 5%
b. Outside Fire Escapes and Standpipes (approved), with landings and hose connections at each floor, on buildings three stories and over....	Deduct..... 4% (If no standpipe, above credit should be reduced one-half).
c. Automatic Fire Alarm System (approved) con- nected with paid fire department with per- manent men and horses constantly on duty at fire department houses.....	Deduct..... 10% When found with watchmen reduce credits e or f one-half.
d. Casks and Pails of Water or Chemical Extingui- shers. One approved cask and three pails in good order, or five approved special fire buckets (or in lieu one approved chemical extinguisher) for each 2,000 square feet of floor area.....	Deduct..... 5% (In mercantile risks above credit should preferably be extended for chemical extin- guishers only.)

- e. *Watchman* inside building with approved watch clock ..... Deduct..... 5%  
This credit is not cumulative with f, and in cities where central station service can be obtained, credit should be reduced one-half.
- f. *Watchman* with approved system reporting to central station..... Deduct..... 10%
- g. If building is heated exclusively by hot water or steam produced in separate building, cut off by approved fire door, or if no heat in building ..... Deduct..... 5%  
(This credit not to apply when building contains stationary heat device of any kind).
- h. If all exposed interior woodwork is covered with approved whitewash or fire proof paint..... Deduct..... 2%

## CONTENTS TABLES.

The following tables show amount to be added to occupied building rate to obtain rate on contents, according to damageability and location in building under each grade of protection.

See directions, page 16, for selecting basis rate table for each State.

*Contents of first sub-basement, if any, should take the differential of fourth floor stocks, and contents of each lower sub-basement should take the differential of a stock two floors higher.*

*When contents are located on more than one floor of a building, the occupancy charge must be the average of the floors on which located, i. e., the sum of the charges divided by the number of floors.*

### STARRED OCCUPANCIES.

In the preceding Alphabetical List, certain occupancies are designated by a star. The differential between these occupancies and their containing building should be less than with ordinary occupancies. This difference is a fixed sum for each grade of protection and is named at the head of each of the following Tables. The amount named should be deducted from the differential stated in the Table below, whether the contents be contained on one or more floors.

Example (D. 3) Starred Contents under table 70, situate basement, 1st, 2nd, 3rd and 4th floors, under First Class Protection.

$$66+55+66+72+79=338 \div 5 = 68 - 11 = 57c.$$

If the contents under above example were all contained on grade floor the differential would be  $55 - 11 = 44c$ .

Under Fifth and Sixth Class Protection starred occupancies take same differential as ordinary occupancies.

CONTENTS TABLE

**NO. 70**

**Sixth Class Protection.**

<i>Location of Contents.</i>	<i>D1.</i>	<i>D1½.</i>	<i>D2.</i>	<i>D2½.</i>	<i>D3.</i>	<i>D3½.</i>	<i>D4.</i>
Basement .....	\$0.15	\$0.19	\$0.23	\$0.31	\$0.38	\$0.46	\$0.54
Ground floor.....	.07	.11	.14	.21	.28	.35	.42
Second floor.....	.15	.19	.23	.31	.38	.46	.54
Third floor and over...	.20	.25	.29	.37	.45	.53	.61

**Fifth Class Protection.**

Basement .....	\$0.17	\$0.22	\$0.26	\$0.34	\$0.42	\$0.50	\$0.58
Ground floor.....	.09	.13	.17	.25	.32	.39	.46
Second floor.....	.17	.22	.26	.34	.42	.50	.58
Third floor and over...	.22	.27	.32	.41	.49	.57	.65

**Four and a Half Class Protection.**

	<b>Four and a Half Class Protection.</b>				(Deduct .06c for *)		
Basement .....	\$0.20	\$0.26	\$0.31	\$0.39	\$0.47	\$0.55	\$0.63
Ground floor.....	.12	.17	.22	.29	.36	.44	.52
Second floor.....	.20	.26	.31	.39	.47	.55	.63
Third floor.....	.25	.31	.36	.45	.53	.62	.71
Fourth floor and over..	.30	.36	.42	.51	.60	.69	.78

**Fourth Class Protection.**

	<b>Fourth Class Protection.</b>				(Deduct .08c for *)		
Basement .....	\$0.23	\$0.29	\$0.35	\$0.44	\$0.52	\$0.61	\$0.69
Ground floor.....	.15	.21	.26	.34	.41	.49	.57
Second floor.....	.23	.29	.35	.44	.52	.61	.69
Third floor.....	.28	.35	.41	.50	.58	.67	.76
Fourth floor and over..	.33	.40	.47	.56	.65	.75	.84

**Third Class Protection.**

	<b>Third Class Protection.</b>				(Deduct .10c for *)		
Basement .....	\$0.26	\$0.33	\$0.40	\$0.49	\$0.57	\$0.66	\$0.75
Ground floor.....	.18	.25	.31	.39	.47	.56	.64
Second floor.....	.26	.33	.40	.49	.57	.66	.75
Third floor.....	.31	.39	.46	.55	.64	.74	.83
Fourth floor.....	.36	.44	.52	.61	.70	.80	.90
Fifth floor and over...	.41	.49	.57	.67	.77	.88	.98

**Second Class Protection.**

	<b>Second Class Protection.</b>				(Deduct .11c for *)		
Basement .....	\$0.28	\$0.36	\$0.44	\$0.53	\$0.62	\$0.72	\$0.81
Ground floor.....	.20	.28	.35	.43	.51	.60	.69
Second floor.....	.28	.36	.44	.53	.62	.72	.81
Third floor.....	.33	.42	.50	.59	.68	.78	.88
Fourth floor.....	.38	.47	.56	.66	.75	.86	.96
Fifth floor.....	.43	.53	.62	.72	.82	.93	1.04
Sixth floor.....	.49	.58	.67	.78	.89	1.00	1.11
Seventh floor and over.	.54	.64	.73	.84	.95	1.07	1.19

**First Class Protection.**

	<b>First Class Protection.</b>				(Deduct .11c for *)		
Basement .....	\$0.30	\$0.39	\$0.47	\$0.57	\$0.66	\$0.76	\$0.86
Ground floor.....	.22	.30	.38	.47	.55	.65	.74
Second floor.....	.30	.39	.47	.57	.66	.76	.86
Third floor.....	.35	.44	.53	.63	.72	.83	.93
Fourth floor.....	.40	.50	.59	.69	.79	.90	1.01
Fifth floor.....	.45	.55	.65	.76	.86	.97	1.08
Sixth floor.....	.51	.61	.71	.82	.93	1.05	1.16
Seventh floor.....	.56	.67	.77	.89	1.00	1.12	1.24
Eighth floor and over.	.61	.72	.83	.95	1.06	1.19	1.31

CONTENTS TABLE

No. 75

**Sixth Class Protection.**

<i>Location of Contents.</i>	<i>D1.</i>	<i>D1½.</i>	<i>D2.</i>	<i>D2½.</i>	<i>D3.</i>	<i>D3½.</i>	<i>D4.</i>
Basement .....	\$0.16	\$0.21	\$0.25	\$0.33	\$0.41	\$0.49	\$0.57
Ground floor.....	.08	.12	.15	.23	.30	.38	.45
Second floor.....	.16	.21	.25	.33	.41	.49	.57
Third floor and over...	.21	.26	.31	.40	.48	.57	.66

**Fifth Class Protection.**

Basement .....	\$0.18	\$0.23	\$0.28	\$0.37	\$0.45	\$0.54	\$0.62
Ground floor.....	.10	.14	.18	.26	.34	.42	.49
Second floor.....	.18	.23	.28	.37	.45	.54	.62
Third floor and over...	.24	.29	.34	.43	.52	.61	.70

**Four and a Half Class Protection.**

					(Deduct .07c for *)		
Basement .....	\$0.21	\$0.27	\$0.33	\$0.42	\$0.50	\$0.59	\$0.68
Ground floor.....	.13	.18	.23	.31	.39	.47	.55
Second floor.....	.21	.27	.33	.42	.50	.59	.68
Third floor.....	.27	.33	.39	.48	.57	.67	.76
Fourth floor and over..	.32	.39	.45	.55	.64	.74	.84

**Fourth Class Protection.**

					(Deduct .09c for *)		
Basement .....	\$0.24	\$0.31	\$0.37	\$0.46	\$0.55	\$0.65	\$0.74
Ground floor.....	.16	.22	.28	.36	.44	.53	.61
Second floor.....	.24	.31	.37	.46	.55	.65	.74
Third floor.....	.30	.37	.44	.53	.62	.72	.82
Fourth floor and over..	.35	.43	.50	.60	.70	.80	.90

**Third Class Protection.**

					(Deduct .11c for *)		
Basement .....	\$0.28	\$0.35	\$0.42	\$0.52	\$0.61	\$0.71	\$0.80
Ground floor.....	.19	.26	.33	.42	.50	.59	.68
Second floor.....	.28	.35	.42	.52	.61	.71	.80
Third floor.....	.33	.41	.49	.59	.68	.79	.89
Fourth floor.....	.38	.47	.55	.65	.75	.86	.97
Fifth floor and over....	.44	.53	.62	.73	.83	.94	1.05

**Second Class Protection.**

					(Deduct .11c for *)		
Basement .....	\$0.30	\$0.39	\$0.47	\$0.57	\$0.66	\$0.76	\$0.86
Ground floor.....	.22	.30	.37	.46	.55	.65	.74
Second floor.....	.30	.39	.47	.57	.66	.76	.86
Third floor.....	.36	.45	.53	.63	.73	.84	.95
Fourth floor.....	.41	.51	.60	.70	.80	.92	1.03
Fifth floor.....	.47	.57	.66	.77	.88	1.00	1.11
Sixth floor.....	.52	.62	.72	.84	.95	1.07	1.19
Seventh floor and over.	.58	.69	.79	.91	1.02	1.15	1.27

**First Class Protection.**

					(Deduct .12c for *)		
Basement .....	\$0.32	\$0.41	\$0.50	\$0.60	\$0.70	\$0.81	\$0.92
Ground floor.....	.24	.33	.41	.50	.59	.69	.79
Second floor.....	.32	.41	.50	.60	.70	.81	.92
Third floor.....	.38	.48	.57	.68	.78	.89	1.00
Fourth floor.....	.43	.53	.63	.74	.85	.97	1.08
Fifth floor.....	.49	.60	.70	.81	.92	1.04	1.16
Sixth floor.....	.54	.65	.76	.88	.99	1.12	1.24
Seventh floor.....	.60	.71	.82	.95	1.07	1.20	1.33
Eighth floor and over.	.65	.77	.89	1.02	1.14	1.28	1.41

## CONTENTS TABLE

## No. 80

**Sixth Class Protection.**

<i>Location of Contents.</i>	<i>D1.</i>	<i>D1½.</i>	<i>D2.</i>	<i>D2½.</i>	<i>D3.</i>	<i>D3½.</i>	<i>D4.</i>
Basement .....	\$0.17	\$0.22	30.26	\$0.35	\$0.44	\$0.53	\$0.61
Ground floor.....	.08	.12	.16	.24	.32	.40	.48
Second floor.....	.17	.22	.26	.35	.44	.53	.61
Third floor and over...	.23	.28	.33	.42	.51	.61	.70

**Fifth Class Protection.**

Basement .....	\$0.19	\$0.25	\$0.30	\$0.39	\$0.48	\$0.57	\$0.66
Ground floor.....	.11	.16	.20	.28	.36	.45	.53
Second floor.....	.19	.25	.30	.39	.48	.57	.66
Third floor and over...	.25	.31	.37	.46	.55	.65	.74

**Four and a Half Class Protection.**

(Deduct .07c for \*)

Basement .....	\$0.23	\$0.29	\$0.35	\$0.44	\$0.53	\$0.63	\$0.72
Ground floor.....	.14	.20	.25	.34	.42	.51	.59
Second floor.....	.23	.29	.35	.44	.53	.63	.72
Third floor.....	.28	.35	.42	.52	.61	.71	.81
Fourth floor and over..	.34	.41	.48	.59	.69	.80	.90

**Fourth Class Protection.**

(Deduct .10c for \*)

Basement .....	\$0.26	\$0.33	\$0.40	\$0.50	\$0.59	\$0.69	\$0.79
Ground floor.....	.17	.24	.30	.39	.47	.56	.65
Second floor.....	.26	.33	.40	.50	.59	.69	.79
Third floor.....	.32	.40	.47	.57	.67	.77	.87
Fourth floor and over..	.38	.46	.53	.64	.74	.85	.96

**Third Class Protection.**

(Deduct .11c for \*)

Basement .....	\$0.29	\$0.37	\$0.45	\$0.55	\$0.65	\$0.76	\$0.86
Ground floor.....	.21	.28	.35	.44	.53	.63	.73
Second floor.....	.29	.37	.45	.55	.65	.76	.86
Third floor.....	.35	.44	.52	.63	.73	.84	.94
Fourth floor.....	.41	.50	.59	.70	.80	.92	1.03
Fifth floor and over...	.47	.57	.66	.77	.88	1.00	1.12

**Second Class Protection.**

(Deduct .12c for \*)

Basement .....	\$0.32	\$0.41	\$0.50	\$0.60	\$0.70	\$0.81	\$0.92
Ground floor.....	.23	.32	.40	.50	.59	.69	.79
Second floor.....	.32	.41	.50	.60	.70	.81	.92
Third floor.....	.38	.48	.57	.68	.78	.90	1.01
Fourth floor.....	.44	.54	.63	.75	.86	.98	1.10
Fifth floor.....	.50	.60	.70	.82	.94	1.06	1.18
Sixth floor.....	.55	.66	.77	.89	1.01	1.14	1.27
Seventh floor and over.	.61	.73	.84	.97	1.09	1.23	1.36

**First Class Protection.**

(Deduct .13c for \*)

Basement .....	\$0.34	\$0.44	\$0.54	\$0.65	\$0.75	\$0.87	\$0.98
Ground floor.....	.26	.35	.44	.54	.63	.74	.85
Second floor.....	.34	.44	.54	.65	.75	.87	.98
Third floor.....	.40	.51	.61	.72	.83	.95	1.07
Fourth floor.....	.46	.57	.67	.79	.90	1.03	1.15
Fifth floor.....	.52	.63	.74	.86	.98	1.11	1.24
Sixth floor.....	.58	.70	.81	.94	1.06	1.20	1.33
Seventh floor.....	.64	.76	.88	1.01	1.14	1.28	1.41
Eighth floor and over.	.69	.82	.95	1.08	1.21	1.36	1.50

CONTENTS TABLE

No. 85

**Sixth Class Protection.**

<i>Location of Contents.</i>	<i>D1.</i>	<i>D1½.</i>	<i>D2.</i>	<i>D2½.</i>	<i>D3.</i>	<i>D3½.</i>	<i>D4.</i>
Basement .....	\$0.18	\$0.23	\$0.28	\$0.37	\$0.46	\$0.56	\$0.65
Ground floor.....	.09	.13	.17	.26	.34	.43	.51
Second floor.....	.18	.23	.28	.37	.46	.56	.65
Third floor and over...	.24	.30	.35	.45	.55	.65	.74

**Fifth Class Protection.**

Basement .....	\$0.20	\$0.26	\$0.32	\$0.42	\$0.51	\$0.61	\$0.70
Ground floor.....	.11	.16	.21	.30	.38	.47	.56
Second floor.....	.20	.26	.32	.42	.51	.61	.70
Third floor and over...	.27	.33	.39	.49	.59	.69	.79

**Four and a Half Class Protection.** (Deduct .08c for \*)

Basement .....	\$0.24	\$0.31	\$0.37	\$0.47	\$0.57	\$0.67	\$0.77
Ground floor.....	.15	.21	.26	.35	.44	.54	.63
Second floor.....	.24	.31	.37	.47	.57	.67	.77
Third floor.....	.30	.37	.44	.55	.65	.76	.86
Fourth floor and over..	.36	.44	.51	.62	.73	.84	.95

**Fourth Class Protection.** (Deduct .10c for \*)

Basement .....	\$0.28	\$0.35	\$0.42	\$0.53	\$0.63	\$0.73	\$0.83
Ground floor.....	.18	.25	.32	.41	.50	.60	.69
Second floor.....	.28	.35	.42	.53	.63	.73	.83
Third floor.....	.34	.42	.50	.61	.71	.82	.93
Fourth floor and over..	.40	.49	.57	.68	.79	.91	1.02

**Third Class Protection.** (Deduct .12c for \*)

Basement .....	\$0.31	\$0.40	\$0.48	\$0.59	\$0.69	\$0.80	\$0.91
Ground floor.....	.22	.30	.37	.47	.57	.67	.77
Second floor.....	.31	.40	.48	.59	.69	.80	.91
Third floor.....	.37	.46	.55	.66	.77	.89	1.00
Fourth floor.....	.44	.54	.63	.74	.85	.98	1.10
Fifth floor and over....	.50	.60	.70	.82	.94	1.07	1.19

**Second Class Protection.** (Deduct .13c for \*)

Basement .....	\$0.34	\$0.44	\$0.53	\$0.64	\$0.75	\$0.87	\$0.98
Ground floor.....	.25	.34	.42	.52	.62	.73	.84
Second floor.....	.34	.44	.53	.64	.75	.87	.98
Third floor.....	.40	.50	.60	.72	.83	.95	1.07
Fourth floor.....	.47	.57	.67	.79	.91	1.04	1.16
Fifth floor.....	.53	.64	.75	.87	.99	1.13	1.26
Sixth floor.....	.59	.71	.82	.95	1.08	1.22	1.35
Seventh floor and over.	.65	.77	.89	1.03	1.16	1.30	1.44

**First Class Protection.** (Deduct .14c for \*)

Basement .....	\$0.37	\$0.47	\$0.57	\$0.69	\$0.80	\$0.92	\$1.04
Ground floor.....	.27	.37	.46	.57	.67	.79	.90
Second floor.....	.37	.47	.57	.69	.80	.92	1.04
Third floor.....	.43	.54	.64	.76	.88	1.01	1.13
Fourth floor.....	.49	.61	.72	.84	.96	1.09	1.22
Fifth floor.....	.55	.67	.79	.92	1.04	1.18	1.32
Sixth floor.....	.61	.74	.86	1.00	1.13	1.27	1.41
Seventh floor.....	.68	.81	.93	1.07	1.21	1.36	1.50
Eighth floor and over.	.74	.88	1.01	1.15	1.29	1.45	1.60

CONTENTS TABLE

**NO. 90**

**Sixth Class Protection.**

<i>Location of Contents.</i>	<i>D1.</i>	<i>D1½.</i>	<i>D2.</i>	<i>D2½.</i>	<i>D3.</i>	<i>D3½.</i>	<i>D4.</i>
Basement .....	\$0.19	\$0.25	\$0.30	\$0.40	\$0.49	\$0.59	\$0.69
Ground floor.....	.09	.14	.18	.27	.36	.45	.54
Second floor.....	.19	.25	.30	.40	.49	.59	.69
Third floor and over...	.25	.31	.37	.48	.58	.69	.79

**Fifth Class Protection.**

Basement .....	\$0.22	\$0.28	\$0.34	\$0.44	\$0.54	\$0.64	\$0.74
Ground floor.....	.12	.17	.22	.32	.41	.50	.59
Second floor.....	.22	.28	.34	.44	.54	.64	.74
Third floor and over...	.28	.35	.41	.52	.62	.73	.84

**Four and a Half Class Protection.** (Deduct .08c for \*)

Basement .....	\$0.25	\$0.32	\$0.39	\$0.50	\$0.60	\$0.71	\$0.81
Ground floor.....	.16	.22	.28	.38	.47	.57	.66
Second floor.....	.25	.32	.39	.50	.60	.71	.81
Third floor.....	.32	.40	.47	.58	.69	.80	.91
Fourth floor and over..	.39	.47	.55	.66	.77	.89	1.01

**Fourth Class Protection.** (Deduct .11c for \*)

Basement .....	\$0.29	\$0.37	\$0.45	\$0.56	\$0.66	\$0.77	\$0.88
Ground floor.....	.19	.26	.33	.43	.53	.64	.74
Second floor.....	.29	.37	.45	.56	.66	.77	.88
Third floor.....	.36	.45	.53	.64	.75	.87	.98
Fourth floor and over..	.42	.51	.60	.72	.84	.96	1.08

**Third Class Protection.** (Deduct .12c for \*)

Basement .....	\$0.33	\$0.42	\$0.51	\$0.62	\$0.73	\$0.85	\$0.96
Ground floor.....	.23	.31	.39	.50	.60	.71	.82
Second floor.....	.33	.42	.51	.62	.73	.85	.96
Third floor.....	.40	.50	.59	.71	.82	.94	1.06
Fourth floor.....	.46	.56	.66	.79	.91	1.04	1.16
Fifth floor and over...	.53	.64	.74	.87	.99	1.13	1.26

**Second Class Protection.** (Deduct .14c for \*)

Basement .....	\$0.36	\$0.46	\$0.56	\$0.68	\$0.79	\$0.92	\$1.04
Ground floor.....	.26	.36	.45	.56	.66	.78	.89
Second floor.....	.36	.46	.56	.68	.79	.92	1.04
Third floor.....	.43	.54	.64	.76	.88	1.01	1.13
Fourth floor.....	.49	.60	.71	.84	.97	1.10	1.23
Fifth floor.....	.56	.68	.79	.92	1.05	1.19	1.33
Sixth floor.....	.62	.75	.87	1.01	1.14	1.29	1.43
Seventh floor and over..	.69	.82	.94	1.09	1.23	1.38	1.53

**First Class Protection.** (Deduct .14c for \*)

Basement .....	\$0.39	\$0.50	\$0.61	\$0.73	\$0.84	\$0.97	\$1.10
Ground floor.....	.29	.39	.49	.60	.71	.83	.95
Second floor.....	.39	.50	.61	.73	.84	.97	1.10
Third floor.....	.45	.57	.68	.81	.93	1.07	1.20
Fourth floor.....	.52	.64	.76	.89	1.02	1.16	1.30
Fifth floor.....	.58	.71	.83	.97	1.10	1.25	1.39
Sixth floor.....	.65	.78	.91	1.05	1.19	1.34	1.49
Seventh floor.....	.72	.86	.99	1.14	1.28	1.44	1.59
Eighth floor and over..	.78	.92	1.06	1.22	1.37	1.53	1.69

## CONTENTS TABLE

## No. 95

**Sixth Class Protection.**

<i>Location of Contents.</i>	<i>D1.</i>	<i>D1½.</i>	<i>D2.</i>	<i>D2½.</i>	<i>D3.</i>	<i>D3½.</i>	<i>D4.</i>
Basement .....	\$0.20	\$0.26	\$0.31	\$0.42	\$0.52	\$0.63	\$0.73
Ground floor.....	.10	.15	.19	.29	.38	.48	.57
Second floor.....	.20	.26	.31	.42	.52	.63	.73
Third floor and over...	.27	.33	.39	.50	.61	.72	.83

**Fifth Class Protection.**

Basement .....	\$0.23	\$0.29	\$0.35	\$0.46	\$0.57	\$0.68	\$0.78
Ground floor.....	.12	.18	.23	.33	.43	.53	.62
Second floor.....	.23	.29	.35	.46	.57	.68	.78
Third floor and over...	.30	.37	.44	.55	.66	.77	.88

**Four and a Half Class Protection.** (Deduct .09c for \*)

Basement .....	\$0.27	\$0.34	\$0.41	\$0.52	\$0.63	\$0.75	\$0.86
Ground floor.....	.16	.23	.29	.39	.49	.60	.70
Second floor.....	.27	.34	.41	.52	.63	.75	.86
Third floor.....	.34	.42	.49	.61	.72	.84	.96
Fourth floor and over..	.41	.50	.58	.70	.82	.94	1.06

**Fourth Class Protection.** (Deduct .11c for \*)

Basement .....	\$0.31	\$0.39	\$0.47	\$0.59	\$0.70	\$0.82	\$0.93
Ground floor.....	.20	.28	.35	.46	.56	.67	.78
Second floor.....	.31	.39	.47	.59	.70	.82	.93
Third floor.....	.38	.47	.55	.67	.79	.92	1.04
Fourth floor and over..	.45	.55	.64	.76	.88	1.01	1.14

**Third Class Protection.** (Deduct .13c for \*)

Basement .....	\$0.35	\$0.45	\$0.54	\$0.66	\$0.77	\$0.90	\$1.02
Ground floor.....	.24	.33	.42	.53	.63	.75	.86
Second floor.....	.35	.45	.54	.66	.77	.90	1.02
Third floor.....	.42	.52	.62	.74	.86	.99	1.12
Fourth floor.....	.49	.60	.70	.83	.96	1.10	1.23
Fifth floor and over...	.56	.67	.78	.92	1.05	1.19	1.33

**Second Class Protection.** (Deduct .14c for \*)

Basement .....	\$0.38	\$0.49	\$0.59	\$0.71	\$0.83	\$0.96	\$1.09
Ground floor.....	.28	.38	.47	.59	.70	.82	.94
Second floor.....	.38	.49	.59	.71	.83	.96	1.09
Third floor.....	.45	.56	.67	.80	.93	1.07	1.20
Fourth floor.....	.52	.64	.75	.89	1.02	1.16	1.30
Fifth floor.....	.59	.71	.83	.97	1.11	1.26	1.40
Sixth floor.....	.66	.79	.92	1.06	1.20	1.36	1.51
Seventh floor and over.	.73	.87	1.00	1.15	1.30	1.46	1.61

**First Class Protection.** (Deduct .15c for \*)

Basement .....	\$0.41	\$0.53	\$0.64	\$0.74	\$0.89	\$1.03	\$1.16
Ground floor.....	.30	.41	.52	.64	.75	.88	1.01
Second floor.....	.41	.53	.64	.74	.89	1.03	1.16
Third floor.....	.48	.60	.72	.85	.98	1.12	1.26
Fourth floor.....	.55	.68	.80	.94	1.07	1.22	1.37
Fifth floor.....	.62	.75	.88	1.03	1.17	1.32	1.47
Sixth floor.....	.69	.83	.96	1.11	1.26	1.42	1.58
Seventh floor.....	.75	.90	1.04	1.20	1.35	1.52	1.68
Eighth floor and over.	.82	.97	1.12	1.28	1.44	1.61	1.78

CONTENTS TABLE

**NO. 100**

**Sixth Class Protection.**

<i>Location of Contents.</i>	<i>D1.</i>	<i>D1½.</i>	<i>D2.</i>	<i>D2½.</i>	<i>D3.</i>	<i>D3½.</i>	<i>D4.</i>
Basement .....	\$0.21	\$0.27	\$0.33	\$0.44	\$0.55	\$0.66	\$0.76
Ground floor.....	.10	.15	.20	.30	.40	.50	.60
Second floor.....	.21	.27	.33	.44	.55	.66	.76
Third floor and over...*	.28	.35	.41	.53	.64	.76	.87

**Fifth Class Protection.**

Basement .....	\$0.24	\$0.31	\$0.37	\$0.49	\$0.60	\$0.71	\$0.82
Ground floor.....	.13	.19	.25	.35	.45	.56	.66
Second floor.....	.24	.31	.37	.49	.60	.71	.82
Third floor and over...*	.31	.39	.46	.58	.69	.81	.93

**Four and a Half Class Protection.** (Deduct .09c for \*)

Basement .....	\$0.28	\$0.36	\$0.44	\$0.56	\$0.67	\$0.79	\$0.90
Ground floor.....	.17	.24	.31	.42	.52	.63	.74
Second floor.....	.28	.36	.44	.56	.67	.79	.90
Third floor.....	.36	.44	.52	.64	.76	.89	1.01
Fourth floor and over..	.43	.52	.61	.74	.86	.99	1.12

**Fourth Class Protection.** (Deduct .12c for \*)

Basement .....	\$0.32	\$0.41	\$0.50	\$0.62	\$0.74	\$0.86	\$0.98
Ground floor.....	.22	.30	.37	.48	.59	.71	.82
Second floor.....	.32	.41	.50	.62	.74	.86	.98
Third floor.....	.40	.49	.58	.71	.83	.96	1.09
Fourth floor and over..	.47	.57	.67	.80	.93	1.07	1.20

**Third Class Protection.** (Deduct .14c for \*)

Basement .....	\$0.37	\$0.47	\$0.57	\$0.69	\$0.81	\$0.94	\$1.07
Ground floor.....	.26	.35	.44	.56	.67	.79	.91
Second floor.....	.37	.47	.57	.69	.81	.94	1.07
Third floor.....	.44	.55	.65	.78	.91	1.05	1.18
Fourth floor.....	.51	.63	.74	.88	1.01	1.15	1.29
Fifth floor and over...	.59	.71	.82	.96	1.10	1.25	1.40

**Second Class Protection.** (Deduct .15c for \*)

Basement .....	\$0.40	\$0.51	\$0.62	\$0.75	\$0.88	\$1.02	\$1.15
Ground floor.....	.29	.40	.50	.62	.73	.86	.99
Second floor.....	.40	.51	.62	.75	.88	1.02	1.15
Third floor.....	.47	.59	.71	.85	.98	1.12	1.26
Fourth floor.....	.55	.67	.79	.93	1.07	1.22	1.37
Fifth floor.....	.62	.75	.88	1.03	1.17	1.33	1.48
Sixth floor.....	.69	.83	.96	1.12	1.27	1.43	1.59
Seventh floor and over.	.77	.91	1.05	1.21	1.36	1.53	1.70

**First Class Protection.** (Deduct .16c for \*)

Basement .....	\$0.43	\$0.55	\$0.67	\$0.81	\$0.94	\$1.08	\$1.22
Ground floor.....	.32	.43	.54	.67	.79	.93	1.06
Second floor.....	.43	.55	.67	.81	.94	1.08	1.22
Third floor.....	.50	.63	.76	.90	1.03	1.18	1.33
Fourth floor.....	.58	.71	.84	.99	1.13	1.29	1.44
Fifth floor.....	.65	.79	.93	1.08	1.23	1.39	1.55
Sixth floor.....	.72	.87	1.01	1.17	1.32	1.49	1.66
Seventh floor.....	.79	.95	1.10	1.26	1.42	1.60	1.77
Eighth floor and over.	.87	1.03	1.18	1.35	1.52	1.70	1.88

a

## AFTER CHARGES.

The following punitive charges for unsafe arrangements or conditions are fixed amounts and not percentages. They should be added to building and contents after final rate, including exposures, has been figured, in order that change may not necessitate a re-rating. The charges are fixed amounts for each \$100 at risk instead of percentages of Basis Rate:

*Charges.*

- a. *Heating Arrangements* (unsafe), including stoves or furnaces or their connections, flues, chimneys, open fire places, in addition to charges, if any, for safe arrangements. Add, according to gravity of defects.....from 5c to \$1.00
- b. *Lighting Arrangements* (unsafe), gas brackets, lamps, electric lights, wiring, etc., in addition to charge, if any, for safe arrangements. Add, according to gravity of defects.....from 5c to \$1.00
- c. *Motive Power Arrangements* (unsafe).  
This charge should be made in addition to regular charge, if any, for safe arrangement, and should include any defect, remediable at small expense, for which a penal charge will probably bring about reform. Add according to gravity of defects.....from 5c to \$1.00
- d. *General Untidiness or Carelessness*, including any objectionable feature of management or condition of premises, not charged for in preceding table, add according to gravity of defects.....from 5c to \$1.00  
NOTE: The following charges should be made for the hazards most commonly found under this head:
1. For absence of metal lockers with self-closing doors, in industrial risks where workmen's clothes are liable to be soiled with grease or paint.....5c to 10c
  2. No approved metal waste cans in industrial risks where oily waste, rags or other refuse are found.....5c to 10c
  3. No approved drip cups under shaft-bearings, unless floor is non-combustible.....5c to 10c
  4. No approved drip pans under printing presses, or drills, lathes or boring machines in metal workers, unless floor is non-combustible.....5c to 10c
  5. No signs prohibiting smoking in industrial risks employing over 5 hands or in any risk in which combustibility of occupancy grades higher than (C. 3), unless otherwise provided for in Alphabetical Occupancy List .....5c to 10c
  6. *Flexible Rubber Tubes* with stationary furnaces, or, where possible to have gas pipe connection, with movable furnaces.....5c to 25c
- e. *Storage of Dangerous Substances* not otherwise provided for in Alphabetical Occupancy List, or Appendix .....5c to \$1.00
- f. *Moving Picture Machines* with Assemblage or Recreational occupancies, such as churches, schools, halls, theatres, etc.
  1. Machine not enclosed in Standard Booth, as per specifications.....50c
  2. Machine enclosed in wood, metal lined booth, with all openings and ventilation as per standard specifications.....25c
  3. Machine enclosed in Standard Booth as per specifications.....10c
- g. *Fixed Ammunition (Small Arms)*.  
Not over 2,000 lbs. located on grade floor, no charge.  
If over 2,000 lbs. on grade floor and (or) any quantity not on grade floor.....10c  
If in cases, weight to be estimated at an average of 75 lbs. each.  
If kept in a standard enclosure, as per specifications, no charge.

**EXAMPLES.**

**NOTICE:** The rating sheets published for use with this system are so largely self-explanatory that the following examples are given merely to show the general method of application as stated in Directions, page 15.

The examples are all computed from basis rate table No. 70 and contents table of same number and such of the charges as do not appear in the description of each risk, are assumed for purpose of illustration.

**SINGLE OCCUPANCY.**

*Example No. 1.*

**Municipal Protection:** Class 6.

**Building:** One story B; 20 x 80 ft.; no basement; wood ceiling; wooden cornice, not cut off.

**Occupancy:** Retail drugs with paints and oils.

Basis rate, 1 story.....	\$ 0.70	
Deduct for no basement.....	<u>.04</u>	.66

*(Charges.)*

Area 1600 ft.; one floor.....	2%	
Wood ceiling.....	2%	
Wooden cornice, not cut off, not continuous.....	5%	
Occupancy, retail drugs.....	10%      20%	
Add for paints and oils, 3 bbls.....	10%	
Total charges extended.....	29% + 20% = 49% =	.32

Occupied building rate.....		\$ 0.98
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*(Contents.)*

Drugs (D. 2½ first floor).....		.21
Rate of contents.....		\$ 1.19

*Example No. 2.*

**Municipal Protection:** Class 1.

**Building:** Five story and basement B; 50 x 100 ft.

**Occupancy:** Wholesale dry goods, basement used for active business purposes.

Basis rate.....		\$ 0.48
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*(Charges.)*

Area 5000 ft.; six floors (including basement) .....	22%	
2 Walls, side, deficient 4 in. each, at 4% .....	8%	
2 Parapets, deficient 1/3 each in height at 2%.....	4%	
5 Floorways, grade B, "below a" at 5% each .....	25%	
One additional opening "below a," each floor at 1%.....	5%	
Occupancy, wholesale dry goods.....	5%      10%	

Total charges extended.....		69% + 10% = 79% = .38
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Occupied building rate.....		\$ 0.86
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*(Contents.)*

Wholesale dry goods, 5 floors and basement (D. 2)=309÷6=		.52
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Rate of stock.....		\$ 1.38
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MULTIPLE OCCUPANCY.

Example No. 3.

**Municipal protection:** Class 4.

**Building:** Two story and basement B: 100 x 80 ft.

**Occupancy:** Basement not used for active business purposes.

Ground floor: Retail grocery; Drug store with paints and oils; Hardware, no tinwork; Furniture with repairs (no painting, varnishing or upholstering).

Second floor: Public Hall, no stage or scenery; Photograph Gallery and Offices.

Basis rate..... \$0.58

(Charges.)

Area: 8000 ft.; (2 floors excluding base- ment) .....	15%
2 Walls (supporting) 2 in. deficient 2% each .....	4%
2 Parapets, 1/3 deficient in height 2% each.	4%
2 Parapets deficient in thickness 2% each	4%
3 Partitions, wood lath and plaster, be- tween ground floor occupancies, 3% each .....	9%
Wooden awning.....	5%
Photographer's sky light 200 sq. ft.....	9%

(Occupancies.)

Grocery .....	5%	10%
Hardware .....	5%	10%
Furniture .....	10%	20%
Add for repairs.....	10%	
Drug store.....	10%	20%
Add for paints and oils .3 bbls.....	10%	
Public Hall.....	10%	
Photograph Gallery .....	5%	10%

Total charge extended.....  $115\% + 20\% = 135\% = .78$

Occupied building rate..... \$1.36

(Contents.)

Groceries	D 2 (1st floor and basement) ..	\$0.31 + 1.36 = \$1.67
Drugs	D 2½ (1st floor and basement) ..	.39 + 1.36 = 1.75
Hardware	D 2 (Ground floor) .....	.26 + 1.36 = 1.62
Furniture	D 2½ (Ground floor) .....	.34 + 1.36 = 1.70
Hall Furniture	D 2 (2nd floor) .....	.35 + 1.36 = 1.71
Photographer	D 4 (2nd floor) .....	.69 + 1.36 = 2.05
Offices	D 2 (2nd floor) .....	.35 + 1.36 = 1.71

## HOLLOW-CEMENT-BLOCK OR TILE BUILDINGS.

### (To Rate Buildings.)

1. In rating these risks, the basis rate for a brick building should be increased by the following ratios and the total treated as a new basis rate, all charges being figured from this increased basis rate:

Under 6th.	Class Protection, increase basis rate.....	25%
Under 5th.	Class Protection, increase basis rate.....	25%
Under 4½.	Class Protection, increase basis rate.....	30%
Under 4th.	Class Protection, increase basis rate.....	35%
Under 3rd.	Class Protection, increase basis rate.....	40%
Under 2nd.	Class Protection, increase basis rate.....	45%
Under 1st.	Class Protection, increase basis rate.....	50%
2. When risk is starred, the new basis rate established by above percentages should be increased by scale for starred risks for frame buildings (see page 10, Frame Tariff).
3. Wall deficiency should be charged as for a stone wall.

### (To Rate Contents.)

4. Reduce differential in Contents Table, brick tariff, one-third.

### (Exposures.)

5. Treat building as brick, except as to wall damage, which should be increased one-half.
6. When a Hollow-Cement-Block or Tile Wall forms a Division Wall, charge to building and contents the following percentages of the occupied building rate of the exposing risk or division:

- a. From ordinary occupancy..... 15%
- b. From starred occupancy..... 20%
- c. From explosive occupancy..... 30%

The charge should in no case exceed 80% of the increase that would result if buildings were rated omnibus, and other exposure charges from same risk are not cumulative.



B

*RECONSTRUCTED*

# FRAME TARIFF

EMBRACING

FRAME, IRON-CLAD AND BRICK-VENEERED  
BUILDINGS AND THEIR CONTENTS.



## EXPLANATORY.

The Frame Tariff published with earlier editions of this system was originally constructed for the purpose of testing the practicability of the Exposure Formulas, the sole end in view at the time being to provide a flexible frame tariff that could readily be adapted to the level of prevailing rates in any state in order that the tests might be made under conditions as diverse as possible. The first experiments resulted in the tariff itself, as well as the Exposure Formulas, being put to use at once in several states, and it has continued in service ever since in a constantly widening field.

Encouraged by this fact to go on and complete the system, the author at once took up the work of constructing a Brick Tariff, which was not published until the Frame Tariff and Exposure Formulas had been in use for nearly a year.

In the meantime experience has suggested that material advantages would accrue from a reconstruction of the Frame Tariff upon the same principles which, later on, were embodied in the Brick Tariff. On the theory that it is always best to let well-enough alone, there is room to question the advisability of attempting to improve a thing that so far seems to have given entire satisfaction, but the determining motive in the change is a desire to make the system as nearly harmonious in all its parts as possible.

An inspection of the two tariffs in early editions, will show that the most prominent difference between them lay in the fact that the basis-rates in the Brick Tariff were purely structural, while in the Frame Tariff they embodied both structure and occupancy. In adapting the latter to use in new states it was necessary for raters to establish, empirically, a separate basis-rate for each property class, and the basis-rates selected in the several states would show a considerable deviation from the uniform relativity among property classes that is established by the Brick Tariff.

Multiple occupancy frames, especially those with more than one ground floor stock, are unusual. On the other hand, multiple occupancy brick-veneered buildings, which are necessarily rated in the same manner as frames, are not uncommon, and it is desirable that some uniform and simple method of measuring the hazard of these omnibus buildings and their contents be provided.

The methods of treating the mutual exposures of the several occupancies in frames and iron-clads differ so widely from the treatment of this hazard in Brick Tariffs, that the problem of reconciliation has been full of difficulties. This may best be explained, perhaps, by the following hypothetical case:

Assuming that A, occupying a one-story B building with a dry goods and boot and shoe stock, decides to run a frame or lath and plaster partition through the middle, and sell his boot and shoe stock with good will, to B.

Under existing brick tariffs the increase in rate caused by two occupancies instead of one would be, possibly, 5 to 10 cents.

If, however, the building were frame instead of brick, the increase of rate would probably be from 50 to 75 cents.

The *internal* structure of frame and brick buildings is practically the same, and the exposure of each occupancy to the others is identical from the standpoint of physical hazard, but in frame buildings the charge for additional occupancies is usually from five to ten times as great as in bricks.

From the standpoint of internal hazard the analogy between the reciprocal exposure of occupancies in omnibus brick and omnibus frame or brick-veneered buildings seems perfect, but if we turn our attention to external frame exposures we are confronted by a conflicting analogy no less perfect. If the original building had been frame, and A had cut it in halves and constructed mutually facing frame walls in lieu of the inside partition, it would have constituted a frame row of two, for which the mutual exposure charge of the two risks, in all frame tariffs, would be even greater than the charge for an additional occupancy in the same building.

In the face of these contradictory analogies, that of the frame row seems entitled to the right of way, because it is sanctioned by usage. This reduces the problem to the reconstruction of the Frame Tariff to harmonize more closely with the structure and methods of the Brick Tariff, without materially disturbing the relations established by usage in the rates of frame, iron clad and brick-veneered buildings, whether of single or multiple occupancy, unexposed or exposed.

This has been effected through a new occupancy list in the frame tariff, which is made to agree, structurally, with the occupancy list in the brick tariff.

In lieu of the classification of combustibility and damageability, the exigencies of the case have been met by making a total occupancy charge that will produce a rate for each specific class, which substantially agrees with its average rate as found in existing tariffs. This total charge is then apportioned to columns 1 and 2 by placing in the former enough to approximate the radiated exposure of the risk and placing the balance of the total charge in column 2 in lieu of the combustibility charge found in column 2 in Brick Tariff. In all the minor occupancies where the quantity of combustibles is negligible, as well as in all stocks that class as C. 1 or C. 2, this leaves no remainder to appear in column 2.

These changes make the process of figuring the individual rate of a risk practically the same with the Frame as with the Brick Tariff and the rates so produced will be found to approximate closely to existing usage with multiple as well as with single occupancy risks.

It remains to point out one more important change that seems amply justified by common sense, even if it is a departure from precedent.

In all frame tariffs of the so-called National Board form, under which the small town business of the country has been rated in the past, it has been customary to allow full credit for municipal protection to mercantile risks only. With other classes there has been no uniformity of practice. In some states, frame hotels, boarding houses, churches, schools, court houses, carpenter and cooper shops, livery stables and other specific classes, are all rated under the sixth grade of protection. In other states, some or all of these classes are rated under grades 4 and 6, or 2, 4 and 6.

It is clear that carpenter and cooper shops, broom-corn and mattress factories, hay and broom-corn warehouses, livery stables, opera houses and a few other classes are notoriously rapid burners, and that

in case of fire the destruction is liable to be complete before any fire department can reach the ground, but it is not equally clear why dwellings, churches, schools, court houses, boarding houses, hotels, etc., have not received as much credit for fire department protection as frame store buildings and their contents. While there is room to contend that there is a deterioration in the moral character of frame risks commensurate with the higher grades of fire department protection, this deterioration is unquestionably as great with frame mercantile risks as with other classes. Be this as it may, the credit allowed to frames for municipal protection in this tariff is about one-third less than the credit allowed to bricks, and this in itself is enough to cover a good deal of deterioration. In this edition equal credit is allowed for fire department protection to all classes excepting the quick-burners. These are designated by a star in the alphabetical list and a simple method of treatment provided. It is hoped that this will cure the discrimination among classes which has characterized frame tariffs in the past.

The advantages likely to result from the reconstructed Frame Tariff may be summed up as follows:—

1st—It will produce a more logical differentiation in frame risks, according to height, area and occupancy.

2nd—It will establish the same permanent and uniform relativity among frame classes in the several states that is established among property classes by the Brick Tariff.

3rd—It will make it as easy to adapt the Frame Tariff to each state as it has been to adapt the Brick Tariff, and it will save the necessity for a separate edition for each state.

4th—It makes it possible to figure the rates of multiple occupancy frame and brick-veneered buildings and their contents by a method as simple and direct as that provided by the Brick Tariff.

5th—It will simplify the method of figuring exposures to the contents of omnibus frame and brick-veneered buildings.

6th—It will make it possible to utilize for frame as well as brick risks the graded charges in Appendix, excepting those for combustibility, and in rating the nondescript risks not found in alphabetical list and for which no tariff can possibly provide specific treatment it suggests a uniform method for establishing all charges.

## DIRECTIONS FOR FRAME TARIFF.

NOTE: Unless otherwise stated, all charges and credits are percentages of the basis rate of the risk to be rated.

### To Rate Unexposed Frame Buildings.

(Under all grades of Municipal Protection.)

NOTE: Iron-clad and brick-veneered buildings and their contents, should be rated in the same manner as frames, except as to external exposures, for which consult Exposure Formulas.

#### (Single Occupancy Buildings.)

a. Enter in rating sheet, from Frame Basis Rate Tables, the proper basis rate according to height and protection. Then note all structural charges and credits from Tables (page 9) and all charges connected with occupancy from columns 1 and 2 of Alphabetical List of Occupancies. The difference between the totals of charges and credits will show the percentage of basis rate to be added thereto. The total amount so obtained should then be reduced by credits, if any, for structural features (see Table of Credits, page 57), and the resulting figure further reduced by credits, if any, for protective features (see same page).

#### (Multiple Occupancy or Omnibus Buildings.)

(Embracing all buildings with two or more occupancies under one continuous roof.)

b. Proceed as directed in section a, except that all charges (connected with the several occupancies) found in column 1 of Alphabetical List, should be treated as cumulative with the highest charge only, for any of the occupancies found in column 2. The difference between the totals of charges and credits will show the percentage of basis rate to be added thereto. The total amount should be reduced by credits for structural features (see Table, page 57), and the resulting figure further reduced by credits, if any, for protective features (see same page).

### To Rate Contents of Unexposed Buildings.

(Under all grades of municipal protection.)

c. Contents whether in single or multiple occupancy buildings take building rate plus contents differential as shown by Contents Table, page 58.

NOTE: When building is exposed, see Note under Contents Removability Table, page 9, Exposure Formulas.

#### (Exceptions, applicable to all grades of protection.)

d. In rating hotels with two or more ground floor stocks, add only 80 per cent. of the total of the charges for ground floor stocks in column 1 of occupancy list in establishing the rate of building itself.

e. When upper stories of an omnibus building with more than one ground floor stock are occupied by a boarding house or two or more dwellings, add 90 per cent. of the total of the charges for ground floor stocks in column 1 of occupancy list, to establish the rate of building itself.

External exposures, if any, should be figured as directed in Exposure Formulas.

## BASIS RATES.

(*Frame, Iron-Clad or Brick-Veneered Buildings.*)

Note.—The following basis rates are computed from the standard of a one-story building in an unprotected town, the tables ranging from 90 to 200, as indicated by the heavy-face figures at the left of each table—for example, table No. 120 is computed upon the basis of \$1.20 per \$100 of insurance.

When building exceeds three stories in height, increase the three-story basis rate 10 per cent for each additional story.

The proper basis rate table to use in each State should be established by tests.

<b>90</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.61	\$0.67	\$0.71	\$0.77	\$0.82	\$0.86	\$0.90
2 stories.....		.64	.70	.75	.81	.86	.91	.95
3 stories.....		.68	.75	.79	.86	.92	.97	1.01

<b>95</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.65	\$0.70	\$0.75	\$0.82	\$0.86	\$0.91	\$0.95
2 stories.....		.68	.74	.79	.86	.91	.96	1.00
3 stories.....		.73	.79	.84	.92	.97	1.02	1.06

<b>100</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.68	\$0.74	\$0.79	\$0.86	\$0.91	\$0.96	\$1.00
2 stories.....		.71	.78	.83	.90	.96	1.01	1.05
3 stories.....		.76	.83	.88	.96	1.02	1.08	1.12

<b>105</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.71	\$0.78	\$0.83	\$0.90	\$0.96	\$1.01	\$1.05
2 stories.....		.75	.82	.87	.95	1.01	1.06	1.10
3 stories.....		.80	.87	.92	1.01	1.07	1.13	1.18

<b>110</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.75	\$0.81	\$0.87	\$0.95	\$1.00	\$1.06	\$1.10
2 stories.....		.78	.86	.91	.99	1.06	1.11	1.16
3 stories.....		.84	.91	.97	1.06	1.12	1.19	1.23

<b>115</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.78	\$0.85	\$0.91	\$0.99	\$1.05	\$1.10	\$1.15
2 stories.....		.82	.90	.95	1.04	1.10	1.16	1.21
3 stories.....		.87	.95	1.01	1.10	1.17	1.24	1.29

<b>120</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.82	\$0.89	\$0.95	\$1.03	\$1.09	\$1.15	\$1.20
2 stories.....		.85	.94	1.00	1.08	1.15	1.21	1.26
3 stories.....		.91	1.00	1.06	1.15	1.22	1.30	1.34

<b>125</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.85	\$0.93	\$0.99	\$1.08	\$1.14	\$1.20	\$1.25
2 stories.....		.89	.98	1.04	1.13	1.20	1.26	1.31
3 stories.....		.95	1.04	1.10	1.20	1.28	1.35	1.40

<b>130</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.88	\$0.96	\$1.03	\$1.12	\$1.18	\$1.25	\$1.30
2 stories.....		.92	1.01	1.08	1.17	1.25	1.31	1.37
3 stories.....		.99	1.08	1.14	1.25	1.33	1.40	1.46

<b>135</b>	Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1 story.....		\$0.92	\$1.00	\$1.07	\$1.16	\$1.23	\$1.30	\$1.35
2 stories.....		.96	1.05	1.12	1.22	1.30	1.36	1.42
3 stories.....		1.03	1.12	1.19	1.30	1.38	1.46	1.51

<b>140</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$0.95	\$1.04	\$1.11	\$1.20	\$1.27	\$1.34	\$1.40
2	stories.....		.99	1.09	1.16	1.26	1.34	1.41	1.47
3	stories.....		1.06	1.16	1.23	1.34	1.43	1.51	1.57
<b>145</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$0.99	\$1.07	\$1.15	\$1.25	\$1.32	\$1.39	\$1.45
2	stories.....		1.03	1.13	1.20	1.31	1.39	1.46	1.52
3	stories.....		1.10	1.20	1.28	1.39	1.48	1.57	1.62
<b>150</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$1.02	\$1.11	\$1.19	\$1.29	\$1.37	\$1.44	\$1.50
2	stories.....		1.07	1.17	1.25	1.35	1.44	1.52	1.58
3	stories.....		1.14	1.25	1.32	1.44	1.53	1.62	1.68
<b>160</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$1.09	\$1.18	\$1.26	\$1.38	\$1.46	\$1.54	\$1.60
2	stories.....		1.14	1.25	1.33	1.44	1.54	1.62	1.68
3	stories.....		1.22	1.33	1.41	1.54	1.63	1.73	1.79
<b>170</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$1.16	\$1.26	\$1.34	\$1.46	\$1.55	\$1.63	\$1.70
2	stories.....		1.21	1.33	1.41	1.53	1.63	1.72	1.79
3	stories.....		1.29	1.41	1.50	1.63	1.73	1.83	1.90
<b>175</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$1.19	\$1.30	\$1.38	\$1.51	\$1.59	\$1.68	\$1.75
2	stories.....		1.25	1.37	1.45	1.59	1.67	1.76	1.84
3	stories.....		1.33	1.46	1.55	1.69	1.78	1.89	1.96
<b>180</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$1.22	\$1.33	\$1.42	\$1.55	\$1.64	\$1.73	\$1.80
2	stories.....		1.28	1.40	1.49	1.62	1.73	1.82	1.89
3	stories.....		1.37	1.49	1.58	1.73	1.84	1.94	2.02
<b>190</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$1.29	\$1.41	\$1.50	\$1.63	\$1.73	\$1.82	\$1.90
2	stories.....		1.35	1.48	1.58	1.71	1.82	1.92	2.00
3	stories.....		1.44	1.58	1.67	1.82	1.94	2.05	2.13
<b>200</b>		Classes	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4½</b>	<b>5</b>	<b>6</b>
1	story.....		\$1.36	\$1.48	\$1.58	\$1.72	\$1.82	\$1.92	\$2.00
2	stories.....		1.42	1.56	1.66	1.80	1.92	2.02	2.10
3	stories.....		1.52	1.66	1.76	1.92	2.04	2.16	2.24

## CHARGES AND CREDITS.

All charges and credits to be percentages of basis rate unless otherwise stated.

### (FRAME TARIFF.)

#### 1. Table of Area Charges

- a. Area charge should be applied to all buildings.
- b. When the ground floor area exceeds the limits of the following table, the proper charge may be found from multiples of the areas provided for by adding the charges of two areas. Either method will produce substantially the same result.
- c. When parts of a building differ in the number of floors, take the sum of the charges for each section, according to its area and number of floors. This charge is a percentage of the basis rate of the part containing the greatest number of stories.
- d. Basement should not be counted as a floor unless occupied for active business purposes, or by hotel, apartment, lodging, or club house, for cooking, dining, laundering, storage or the generation of power, heat or light.

When area is between any two figures in this column select the nearer of the two. When ex- actly half way between take the average of the two.	Square feet of ground floor area.	1 Floor.	2 Floors.	3 Floors.	4 Floors.	5 Floors.
	1 M .....					
	2 "			5%	7%	8%
	3 "	3%	6%	8%	10%	12%
	4 "	4%	8%	11%	14%	16%
	5 "	5%	10%	14%	17%	20%
	6 "	6%	11%	16%	20%	23%
	7 "	7%	13%	19%	24%	27%
	8 "	8%	15%	22%	27%	31%
	9 "	9%	17%	24%	31%	35%
	10 "	10%	19%	27%	34%	39%

2. Foundations. If no foundations or posts or pillars.....Add 8%

#### Chimneys, Flues and Stovepipes.

(Increase charges 3a to 3e inclusive, one-fifth for each additional flue or stovepipe, up to double the charge).

- 3a. If brick or stone chimneys rest on floors, beams, wooden brackets or joists, or are otherwise below standard.....Add 8%
- 3b. If cement, less than 4" thick, tile or terra cotta.....Add 20%  
(If resting on floors, beams, wooden brackets or joists increase charge 8 points).
- 3c. If brick on edge.....Add 30%  
(If resting on floors, beams, wooden brackets or joists, increase charge 8 points).
- 3d. If stovepipes pass through roof, windows or side of building (safely arranged).....Add 20%
- 3e. If stovepipes pass through roof, windows or side of building with approved patent ventilator.....Add 15%
- 3f. If stovepipes pass through floors, wood lath and plaster or wooden partitions (safely arranged).....Add 8%

Note 1: Increase charge 3f one-fifth for each additional stovepipe and one-fifth for each floor or partition pierced, up to double the charge.

Note 2: If through ceiling into cockloft, roof space, closet or any concealed space, double charges 3b, 3c, 3d and 3e.

#### (CREDITS.)

- 4. If frame building has gravel, slag, metal, tile, slate, or composition roof approved by the Underwriters Laboratories, Inc., with or without iron-clad sides, deduct.....10%
- 5. If building has brick-veneered walls, deduct.....5%

#### Power Devices.

All charges for Motive Power, fixed or movable, should be made from Table of Charges for Power Devices in Appendix.

## ALPHABETICAL LIST OF OCCUPANCIES

(*Frame Tariff*).

a. In the following list, the damageability of each occupancy is stated in column 3 and the contents differential should be applied in the same manner as for brick risks, using the Frame Contents Table, page 58.

b. The classified removability is also stated with each occupancy in list, all stocks to be considered non-removable unless designated in list as removable or semi-removable by the letters "R" and "S. R." All property not located on ground floor of building to be considered non-removable.

Note: Removability affects only the rates of ground floor contents of *exposed* buildings. For further information, consult Exposure Formulas.

c. When an item in Alphabetical List is preceded by a star, it indicates that the risk belongs to quick-burning class and is entitled to less credit for fire department protection than ordinary risks. In such cases the basis rate should be increased by the following percentages and treated as a new basis rate.

Under 1st class protection increase basis rate 20%.

Under 2nd class protection increase basis rate 15%.

Under 3rd class protection increase basis rate 10%.

Under 4 and 4½ class protection, increase basis rate 5%.

Under 5th class protection, use basis rates of 6th class towns.

d. The sign double-dagger (‡) indicates that the occupancy it accompanies and auxiliary buildings, if any, connected with it, when found in single occupancy special hazards, should be rated by the special rules for the class.

e. All charges connected with occupancies, not specifically stated in the following list, are to be made from Appendix.

f. When the words Power, Heat, Labor, etc., appear, their meaning is to be taken as follows:

Power—Charge should be made from tables in Appendix.

Heat—This word indicates that charges should be made for all heat-producing and utilizing devices found with the risk as provided for by tables in Appendix. The general word "Heat" is used when all of these devices are likely to be connected with the risk, but when only one is usually found it is named in lieu of "Heat," as "Forge," "Furnace," etc.

NOTE: The words "Power," "Heat," etc., are always accompanied by the classification as to combustibility to indicate the proper charge. For example, Power (C. 2) signifies that whatever the power device may be, the charge is to be made from the proper table in Appendix.

Labor, Additional Labor—See Note under Labor in Appendix.

g. If repairs, auxiliary work, oils, gasoline, sodium peroxide, etc., see charges in Appendix.

h. For remediable defects, faults of management, etc., see After Charges, page 59.

**ALPHABETICAL LIST.**

**1      2      3**

100	<b>Academies</b> in upper stories of Mercantile Buildings (see Schools).			
101	<b>Advertising</b> Novelties. Stocks.....	60%	20%	D3
102	<b>Advertising</b> Novelties, manufacturing. If paper, see Notions (paper). If leather, see see Leather Sewing. If cloth, see Sewing Risks. If metal, see Machine Shops. If wood, see Woodworking. If celluloid used in small quantities in connection with any of the foregoing, in addition to regular charge for the occupancy, add .....	50%		
103	<b>Agricultural</b> Implement Stocks, S. R..... 1. Labor (C.2). 2. Forge, portable (see Appendix). If over 5 hands and (or) power woodworking, see Machine Shops and (or) Woodworking.	50%		D2
104	<b>Armories</b> (see Halls).			
105	<b>Art</b> Stocks and Artists' Materials..... 1. Labor (C. 2).	50%		D4
106	<b>Athletic</b> Goods (see Sporting Goods).			
107	<b>Auction</b> Stocks .....	60%	20%	D3
108	* <b>Automobile</b> Garages for storage and care of Automobiles in use..... (For other charges see Automobile Stocks —Charges 1 to 8, inclusive.)	110%	100%	D3
109	<b>Automobiles</b> in mercantile buildings. a. Not over two machines, with warranty that no charging or repairing of machines is done in building..... 1. Repairing and (or) charging, see charges under Automobile Stocks. b. Over two machines, see Automobile Stocks.	30%		
110	<b>Automobile</b> Stocks: Electric, Steam or Gasoline Machines..... (No gasoline on premises or in machines.)	70%	30%	D3
111	* <b>Automobile</b> Stocks: Gasoline Machines, with gasoline in machines only .....	90%	60%	D3
	1. Labor (repairing) (C. 4). 2. Power, heat (C. 4). 3. Charging with electricity not produced on premises, in rooms where gasoline or gasoline machines are kept..... (Above charge is cumulative with charge for power, if produced on premises.)	20%		
	4. Charging with gasoline (not cumulative with item 5): a. Gasoline delivered direct to machines from approved portable tank filled outside building .....	50%		
	b. Gasoline delivered direct to machines from approved portable tank filled from approved pump inside building, or from approved cans .....	70%		
	c. Gasoline delivered direct to machines from approved pump.....	70%		
	d. Flexible tube on approved portable tank and (or) on approved pump not approved or over 10 feet long.....	20%		
	e. Supply pump not approved.....	30%		

f.	Outside supply delivered to building by gravity or compressed air (cumulative with b or c).....	50%	
g.	Gasoline handled or stored in unapproved tanks or unapproved or open receptacles (see also item 6).....	130%	
NOTE: Where item g applies, no charges should be made under items a to f, inclusive.			
5.	Gasoline used for washing and (or) cleaning outside of approved safety cans.....	130%	
6.	Gasoline in building outside machines in excess of one barrel:		
a.	Not over one barrel excess.....	100%	
b.	For each additional barrel.....	50%	
7.	<i>Lighting and Heating</i> in rooms where gasoline is handled or stored or filled machines are kept:		
a.	Open lights including open arc lights and (or) fire heat, see Appendix.		
b.	Incandescent electric lights not in vapor-proof globes with keyless sockets (porcelain, if portable), and swinging and portable lights not also protected by wire guards.....	50%	
8.	For stable .....	30%	
9.	If premises used as a public garage.....	60%	
112	<b>Automobile Supply Stocks</b> (no machines) S.R... .	50%	D3
113	<b>Awning and Tent Making.</b> (See Sewing Risks.)		

122	<b>Badge</b> Manufacturing (see Stencil Manufacturing).		
123	<b>Bag</b> Factories, Paper (see Paper Bag Factories).		
124	<b>Bag</b> Factories, Textile (see Sewing Risks).		
125	<b>Bags</b> (leather) Manufacturing (see Leather Sewing Risks).		
126	<b>Bakeries</b> (retail), not over 5 hands, S.R..... (If over 5 hands, see Bakeries, wholesale.)	50%	D3
	1. Power, heat, etc. (C. 2).		
127	# <b>Bakeries</b> (wholesale or retail), bread only..... 1. Additional labor, power, heat, etc. (C. 2).	50%	D3
128	# <b>Bakeries</b> (wholesale), no cracker or cookie baking .....	60%	20%
	1. Additional labor, power, heat, etc. (C. 3).		D3

		1	2	3
129	<b>Bakeries</b> (wholesale), with cracker or cookie baking, etc. .... 1. Additional labor, power, heat, etc. (C. 3½).	70%	30%	D3
130	<b>Banks</b> .....	20%		D2
131	<b>Barber</b> Shops, small, no baths, S.R. .... (If in upper stories of mercantile buildings, reduce above charge one-half.) 1. Hot water baths, unless heat is produced outside or by regular heating plant of building .....	20%		D2
132	<b>Barns</b> (see Stables).			
133	<b>Basket</b> and Willow-ware Stocks .....	60%	20%	D3
134	<b>Basket</b> Making .....	70%	30%	D3
	(No sawing or splitting.) 1. Additional labor (C. 3½). 2. Power (C. 3½). When found with separate warehouse for storage of manufactured goods, class all contents as .....			D2
135	<b>Beer</b> Depots .....	70%	30%	D2½
136	<b>Bicycle</b> Stocks and Shops (not over 5 hands) .... 1. Power, heat, etc. (C. 2). 2. Painting, enameling, lacquering or dipping. .... (If over 5 hands, see Machine Shops.)	50%		D2½
137	<b>Billiard</b> Saloons (no bar) .....	50%		D2½
138	<b>Blacksmith</b> Shops, no woodworking..... 1. Additional labor, power, etc. (C. 1). 2. Forging hazard, charge according to directions, page 20, Appendix. 3. Occasional hand woodwork repairs.... 4. Occasional painting.....	30%		D1
139	<b>Blacksmith</b> and Wagon Shops..... 1. Additional labor, power, etc. (C. 3½). 2. Forging hazard, charge according to directions, page 20, Appendix. 3. Painting on metal only: a. Regular ..... b. Occasional ..... 4. Painting on wood or wood and metal: a. Regular ..... b. Occasional ..... 5. Trimming ..... (If power woodworking machines except saws, nailers or boring machines, or if more than one planer, either pony or block - planer - and - trimmer, see Woodworking.)	70%	30%	D2
140	<b>Blind</b> , Sash and Door Stocks (not connected with Lumber Yards) .... 1. Occasional painting and glazing..... 2. Regular painting and glazing..... 3. Power sanding without approved blowers, not over two machines..... 4. Power sanding, as above, with approved blower .....	60%	20%	D2
	5. Power (C. 3½). If planers or more than 2 sanders, (see Woodworking).	20%		
141	<b>Boarding</b> Houses (private), rate by special schedule.			
142	<b>Boarding</b> and Lodging Houses in upper stories of mercantile buildings..... When mercantile building has been abandoned to boarding house occupancy, add to basis rate, S.R.....	20%		D2
		50%		

1.	Cooking for boarders, not over one stove, range or furnace.....	15%		
	For each stove, range or furnace over one, used for cooking, increase above charge one-fifth up to double the charge, counting each 5 fire pots, or fraction thereof in ranges, as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half.			
2.	If over 20 rooms, see Hotels.			
3.	If laborers' lodging or boarding houses in upper stories of mercantile buildings double the total of above charges, and if over 20 rooms, see Hotels. When mercantile building has been abandoned to laborers' lodging or boarding house occupancy, rate as Hotel.			
	NOTE: No charge for sleeping rooms of ground floor occupants or their clerks.			
143	<b>Boarding</b> and Lodging Houses (low grade bunk houses in mercantile buildings).....	100%	D2	
144	<b>Book</b> and Stationery Stocks, S. R.....	50%	D3	
145	<b>Boot</b> and Shoe Stocks, R.....	50%	D2	
146	<b>Boot</b> Black Parlors.....	20%	D2	
147	<b>Bottle</b> or Hollow Glassware, Stocks of (no packing or unpacking) .....	50%	D2	
	1. Labor, packing or unpacking (C. 3). 2. If no bins for packing materials.....	20%		
	3. If hay or straw stored in building in excess of one day's supply, grade combustibility by scale for hay in feed stores.			
148	<b>Bottle</b> or Hollow Glassware, Storage (new).			
	a. Goods not packed, or packed in boxes or crates (no hay or straw).....	40%	D2	
	b. Goods packed in hay or straw.....	70%	D2	
149	<b>Bottles</b> , second-hand (see Junk).			
150	<b>Bottlers'</b> Supplies with cartons (paper or straw) (not over 50 bales of straw).....	60%	20%	D3
	(If over 50 bales of straw grade combustibility by scale for hay in feed stores.)			
151	<b>Bottling</b> Works .....	50%	D2	
	1. Additional labor (C. 2). 2. Power, heat, etc. (C. 2).			
152	<b>Bowling</b> Alleys .....	50%	D3	
153	<b>Box</b> Factories (cigar). No planing.....	70%	30%	D3
	1. Additional labor, power, heat, etc. (C. 3½). 2. Power sanding without approved blowers, not over 2 machines.....	70%		
	3. Power sanding as above with approved blowers .....	30%		
	(If planer or more than 2 sanders, see Woodworking.)			
	When found with separate warehouse for storage of manufactured goods, class all contents as			
154	<b>Box</b> Factories (paper) folding only.....	60%	20%	D2½
	1. Additional labor, power, heat, etc. (C. 3).			
155	<b>Box</b> Factory (paper) .....	70%	30%	D3
	1. Additional labor (C. 3½). 2. Power (C. 3½). 3. Dry Rooms and Furnaces (C. 3½).			
156	<b>Brand</b> , Stencil and Stamp Works (see Stencil, Stamp, Brand, Seal and Badge Manufacturing).			

		<b>1</b>	<b>2</b>	<b>3</b>
157	<b>Brass Goods, S. R.</b>	50%		D1½
158	<b>Brass, Copper, Tin and Lead in ingots or pigs..</b>	30%		
	If all contents located on brick, concrete or earth floor, make rate 33 1/3% less than building rate.			
	If all contents not so located, make rate 20% less than building rate.			
159	<b>Brass Foundries</b> (casting only, no machine work)	60%	20%	D1½
	1. Additional labor, power, heat, etc. (C. 2).			
	2. Brass furnace on concrete, brick or cement floor on iron I beams .....	40%		
	3. Brass furnace on wood floor with approved protection .....	60%		
	Increase charges 2 or 3 one fifth for each brass furnace over 1 up to double the the charge. Furnaces connected with other processes should be counted as "Additional" with brass furnaces.			
	4. If clearance from furnace to combustible material is less than 10 feet and furnace is not provided with a ventilating hood with not less than 2 feet clearance from hood to combustible material.....	50%		
	5. Casting floor not approved.....	50%		
	6. If machine work, see Machine Shops.			
160	<b>Bric-a-Brac and Curios (Stocks of)</b> .....	50%		D4
161	<b>Brick, Tile or Terra Cotta (not packed)</b> .....	30%		D1
162	* <b>Broom</b> Corn Stored in Mercantile Buildings (not over 100 bales).....	90%	60%	D3
163‡* <b>Broom</b> Corn Warehouses.....		120%	100%	D3
	1. Labor baling (C. 4½).			
	2. Power (C. 4½).			
164‡* <b>Broom</b> Factories .....		120%	100	D3
	1. Additional labor, power, heat, etc. (C. 4).			
	2. Bleaching, see Appendix.			
	3. Pitching, and (or) painting or varnishing handles .....	30%		
	When found with separate warehouse for storage of manufactured goods, class all contents as .....			D2
165	<b>Broom</b> Makers (hand), not over 2 bands—small amount of material.....	70%	30%	D3
	1. Bleaching, see Appendix.			
166	* <b>Broom</b> Warehouses .....	70%	30%	D3
167	‡ <b>Brush</b> Factories .....	60%	20%	D2 1/4
	1. Additional labor (C. 3).			
	2. Power (C. 3).			
	3. Furnaces (C. 3).			
	4. Pitching .....	30%		
	If woodwork, see Woodworking.			
168	<b>Brush Stocks, S. R.</b> .....	50%		D2 1/2
169	<b>Builders' Materials</b> (not part of a retail lumber yard).			
	1. With hair, paper and cement only.....	50%		D3
	2. With lime .....	70%	30%	D3
	3. With lime, pitch, tar, etc.....	80%	40%	D3
170	<b>Bushefing</b> Shops (small) .....	50%		D2
	1. Furnaces (C. 2).			
	If in upper stories of mercantile buildings, reduce above charge one-half.			

		1	2	3
171	<b>Butcher</b> Shops. No rendering or smoking in building	50%		D3
	1. Furnace (rendering) with kettle (C. 2).			
	2. Smoking Meats, if inside and not in fire-proof room communicating through approved fire door.....	100%		
	NOTE: If in brick or frame outhouse, reduce above charge by proper percentage in Location Table, Appendix, page 16. If separated by space, reduce resulting charge by General Exposure Tables. No charge should be made if detached 20 feet or over.			
	3. Same, in fire-proofed room in main building, communicating through approved fire door, or in patent metal smoker in main building (approved arrangement). 30%			
	4. Sausage smoking in metal smoke box.... 10%			
	5. Power (C. 2). If cold storage apply charges in columns 1 and 2 under Cold Storage Warehouses, with damageability given above.			
172	<b>Butter</b> , Cheese and Egg Stocks.....	50%		D3
	1. Butter Churning, mixing and (or) packing on small scale, not over 5 hands... (If over 5 hands, see Creameries.)	15%		
	2. Power (C. 2).			
	3. For candling by artificial other than electric light in metal lined room.....	10%		
	4. For candling by artificial other than electric light in the open.....	30%		
173	‡ <b>Button</b> Factories (cloth).....	60	20%	D3
	1. Additional labor (C. 3).			
174	‡ <b>Button</b> Factories (pearl).....	70%	30%	D2
	1. Additional labor, power, etc. (C. 2).			
181	<b>Cabinet and Carpenter</b> Shops. See Woodworking.			
182	‡ <b>Candy</b> Factories .....	70%	30%	D3
	1. Additional labor (C. 3 $\frac{1}{2}$ ).			
	2. Power and heat (C. 3 $\frac{1}{2}$ ).			
	3. Open lights in starch room.....	50%		
183	<b>Candy</b> Stores (no manufacturing), S.R.....	50%		D3
	1. If candy making, labor (C. 2). No charge for 2 hands.			
	2. Power and heat (C. 2).			
184	<b>Canned Goods</b> .....	50%		D1 $\frac{1}{2}$
	b			

		1	2	3
185	<b>Canning</b> Factories, Huller, Sorting and Husking Buildings .....	60%	20%	D2
	(For Warehouses, see Canned Goods.)			
1.	Additional labor, power, heat, etc. (C. 3).			
2.	Box making or re-coopering, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
3.	Painting, varnishing or lacquering.....	30%		
4.	Tin Can making.....	10%		
	(Cumulative with charge under No. 1.)			
5.	If printing or lithographing on tin.....	10%		
186	<b>Carpenter Shops</b> , (See Woodworking).			
187	<b>Carpet</b> Cleaning Establishments (not over 1 gallon of gasoline in approved safety can)..	70%	30%	D2
1.	Additional labor (C. 3½).			
2.	Power (C. 3½).			
3.	If gasoline not in approved safety can....	10%		
4.	If over 1 gallon of gasoline see Cleaning Establishments (Naphtha, etc.).			
188	<b>Carpet and Rugs</b> , Stocks of.....	50%		D1½
1.	Additional labor (sewing) (C. 1).			
2.	Power (C. 1).			
189	<b>Carpet</b> Weaving .....	50%		D2
1.	Additional labor (C. 2).			
2.	Power (C. 2).			
190	<b>Carpet Linings and Mattings</b> , Paper or Straw.	60%	20%	D3
191	<b>Carriage and Wagon</b> Repositories.....	50%		D2
1.	Forge, portable (see Appendix.)			
2.	Repairing, if woodwork, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
3.	Painting, occasional.....	20%		
4.	Trimming .....	20%		
5.	Power (C. 2).			
	(If over 5 hands and (or) power woodworking in excess of above, see Blacksmith and Wagon Shops, or Woodworking.)			
192	<b>Cement</b> , Building .....	30%		D3
193	<b>Cement or Tile Drain Pipe</b> .....	30%		D1
194	<b>Cheese</b> Factories (no butter making).....	50%		D3
1.	Additional labor, power, heat, etc. (C. 2).			
2.	Casein or Cheese grinding.....	10%		
3.	If box making, no power woodworking machines, except saws, nailers and (or) boring machines .....	30%		
4.	If Tin Can making.....	10%		
	(Cumulative with charges under No. 1.)			
	(If Butter making, see Creameries and Cheese Factories.)			
195	<b>Chemists'</b> Laboratories (small) in upper stories of mercantile buildings .....	20%		D3
196	<b>China</b> Decorating (painting only).....	50%		D3½
	In upper stories of mercantile buildings, above charge may be reduced one-half.			
1.	Ovens (C. 1).			
	(If firing done in approved fireproof room, no charge.)			
197	<b>China</b> Ware (see Queensware).			
198	<b>Chinese</b> Stores (miscellaneous).....	60%	20%	D3½
199	<b>Churches</b> in Mercantile Buildings.....			D3
	When the ground floor of a mercantile building has been abandoned to church purposes, add to basis rate 50%.			
200	<b>Cider</b> Mills, see Vinegar Factories (Cider).			

		1	2	3
201	<b>Cider and Vinegar</b> in barrels.....	30%		D1
202	<b>*Cigar Factories</b> and (or) Cigar and Tobacco Stocks, not over 5 hands, S. R..... <i>(If in upper stories of mercantile building, if not over 5 hands, above charge may be reduced one-half.)</i>	50%		D4
	1. Additional labor—cigar making (C. 2). 2. Sweat box, if any..... <i>When found with separate warehouses for storage of materials and manufactured goods, class all contents of cigar factory as</i>	20%		
203	<b>Cleaning and Dyeing Offices</b> , receiving, delivering, repairing, pressing, and (or) cleaning (not over 1 gallon gasoline in approved safety can, not over 10 hands)..... 1. If gasoline not in approved safety can.... 2. If over 1 gallon gasoline or over 10 hands, see Cleaning Establishments (Naphtha, etc.).	50% 10% 10%		D3
204	<b>Cleaning</b> (steam) and (or) <b>Dyeing</b> ..... 1. Additional labor, power, heat, etc. (C. 2).	60% 20%		D2 1/2
205	<b>*Cleaning Establishments</b> (Naphtha, etc.) with approved system of distribution..... 1. Additional labor, power, heat, dry rooms, etc. (C. 4). 2. If system of distribution not approved, or if gasoline or other volatile substances used for cleaning are brought into building or used in receptacles not vapor-proof .....	90% 100%		D3
	<i>Note: This charge should apply for use of wooden washers, or where washers are opened before gasoline is drawn off, also if gasoline is allowed to flow into hopper not provided with vapor-proof cover.</i>			
	3. If without ventilating fan of approved capacity at floor level in washer and dry room .....	30%		
	4. If without approved arrangement of steam jet at ceiling and floor with quick acting valve outside, for washer and dry room..	30%		
	5. Open lights, including open arc lights and (or) fire heat in washer and dry room, see Appendix.			
	6. Incandescent electric lights not in vapor proof globes with keyless sockets, and swinging lights not also protected by wire guards in washer and dry room....	50%		
206	<b>Cloak Factories</b> (see Sewing Risks).			
207	<b>Clocks, Watches and Jewelry</b> (see Jewelry).			
208	<b>Clothing Factories</b> (see Sewing Risks).			
209	<b>Clothing, Stocks of, R.</b> ..... 1. Altering, not over 5 hands, no charge. 2. Additional labor, heat, etc. (C. 2).	50%		D2
210	<b>Clothing Stocks</b> (second hand), S. R.....	60%		D3
211	<b>Club Houses</b> (in town).....	50%		D2
	<b>Club Houses</b> (large suburban)..... 1. If lodging .....	60% 10%		D2
	2. Cooking, not over one stove, range or furnace .....	15%		
	<i>For each stove, range or furnace over one, used for cooking, baking or laundering, increase above charge one-fifth up to double the charge, counting each five fire pots or fraction thereof in ranges, as one furnace.</i>			

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half.			
3.	If baking of bread and (or) pastry, charge for labor engaged in this work on scale (C. 2).		
4.	If steam laundry, charge for labor engaged in this work on scale of (C. 2).		
5.	Dry rooms in connection with steam laundry, charge according to arrangement (C. 2).		
6.	Power (C. 2).		
212	Club Houses (small country), golf, fishing, hunting, etc. ....	60%	20%
213	Club Rooms (social, in upper stories of mercantile buildings), no restaurant or lodging....		D2
	1. Add for cooking.....	10%	
214	Coal and Wood Yards.....	60%	20%
	1. Power sawing .....	10%	
	2. Power (C. 3).		
	NOTE: Where sawing is done in the open yard, reduce charges for sawing and power one half.		
215	Coal Offices (see Offices).		
216	Cobblers' Shops .....	20%	D2
	If in upper stories of mercantile buildings, reduce charge one-half.		
217	Coffee, Tea and Spice Stocks (no roasting or grinding) .....	50%	D2 1/2
218	#Cold Storage Warehouses (no poultry killing and packing) .....	50%	
	1. Additional labor, power, heat, etc. (C. 2).		
	2. If ammonia piped into building.....	10%	
	3. Ammonia drums (not attached to refrigerating machinery), if stored in building, or in shed adjoining building.....	20%	
	4. If poultry killing on small scale, not over 5 hands.....	15%	
	If over 5 hands, rate as Poultry Packing Establishment, which see, making such of above charges as specifically apply for cold storage features.		
	5. If butter making or reworking on small scale, not over 5 hands.....	15%	
	If over 5 hands, rate as Creamery, which see, making such of above charges as specifically apply for cold storage features.		
	6. Candling by artificial light, other than electric, in metal-lined room.....	10%	
	7. Candling by artificial light, other than electric, in the open.....	30%	
	8. If coopering or woodworking, see Woodworking.		
	Machinery and Fixtures class as.....		D1
	Stock class as.....		D2
219	#Collar Factories (leather), if moss or hair.....	70%	30%
	1. Power, heat, additional labor, etc. (C. 3 1/2).		
	*If hay, straw, shucks, etc.....	80%	40%
	2. Power, heat, additional labor, etc. (C. 4).		
	(For other charges see Leather Sewing Risks).		

		<b>1</b>	<b>2</b>	<b>3</b>
220	<b>Commission Houses with Storage Warehouses.</b>			
	1. Candling by artificial other than electric light in metal-lined room.....	50%		D3
	2. Candling by artificial other than electric light in the open.....	10%		
	3. If poultry killing on small scale, not over 5 hands .....	30%		
	4. Power, heat, etc. (C. 3). If poultry killing, over 5 hands, see Poultry Packing Establishments.	15%		
221	<b>Commission Offices (no storage).....</b>			D2
222	<b>Cooper Shops (see Woodworking).</b>			
223	<b>Copper in ingots or pigs (see Brass, Copper, Tin and Lead in ingots or pigs).</b>			
224	<b>Cornice Works, see Machine Shops.</b> (Small shops, not over 5 hands, rate as Tin Shops.)			
225	<b>Costumers' Stocks (for hire or sale).....</b>	60%	20%	D4
	1. Labor (sewers) (C. 3).			
	2. Power (C. 3).			
226	<b>Cotton Storage (in the absence of special schedule.)</b>			
	Not over 20 bales.....	60%	20%	D3
	*Not over 100 bales.....	80%	40%	D3
	(When cotton is stored in same premises with a mercantile stock the above charges apply to entire stock, in lieu of the occupancy charge for stock itself.)			
227	<b>Country Store Stocks (see General Merchandise Stocks).</b>			
228	<b>†Creameries and Cheese Factories.....</b>	60%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
	2. Casein or cheese grinding.....	10%		
	3. If box making, no power woodworking machines, except saws, nailers and (or) boring machines.....		30%	
	4. If Tin Can making.....		10%	
	(Cumulative with charges under No. 1.)			
	5. If cold storage, see Cold Storage Warehouses, making such charges as specifically apply for cold storage features. (If Cheese making only, see Cheese Factories.)			
229	<b>Cutlery Stocks (grinding, not over 5 hands) S.R.</b>	50%		D3
	1. Additional labor, power, heat, etc. (C. 1).			

		1	2	3
239	<b>Dental</b> Depots .....	50%		D3
	(If in upper story of mercantile building, reduce charge one-half.)			
240	<b>Dentists'</b> and Doctors' Offices (see Offices).			
241	<b>Depots</b> , Railway (freight or country), not Terminal .....	70%	30%	D2
242	<b>Depots</b> (passenger only) .....	50%		D2
	If occupied as hotel or restaurant rate as such.			
243	<b>Draperies</b> , Stocks of, S. R.....	50%		D3
	If manufacturing (see Sewing Risks).			
244	<b>Dressmakers</b> , not over 5 hands, S. R.....	20%		D3
	(If in upper stories of mercantile building, above charge may be waived.)			
245	<b>Dressmaking</b> Establishments, not over 10 hands. 50%			D3
	(If in upper stories of mercantile building, above charge may be reduced one-half.)			
	1. Additional labor (C. 1).			
246	<b>Dried</b> Fruit .....	50%		D2
247	<b>Drill</b> Halls (see Halls).			
248	<b>Drug</b> Stores (retail), S. R.....	60%	20%	D2 $\frac{1}{2}$
249	<b>Dry</b> Goods Stocks, R.....	50%		D2 $\frac{1}{2}$
250	<b>Dwellings</b> , Flats or Apartment Houses in upper stories of mercantile buildings.....			D2
	When ground floor of a mercantile building has been abandoned to dwelling occupancy, add to basis rate, S. R.....	50%		
251	<b>Dyeing</b> and Cleaning Establishments (see Cleaning and Dyeing.)			
261	<b>Egg</b> Stocks .....	50%		D3
	1. For candling by artificial other than electric light in metal-lined room.....	10%		
	2. For candling by artificial other than electric light in the open.....	30%		
262	<b>Electrical</b> Supplies and Small Shops, not over 5 hands .....	50%		D2 $\frac{1}{2}$
	1. Power, furnaces (C. 2). If over 5 hands, see Machine Shops.			
263	<b>Embroideries</b> , Stocks of (no manufacturing) S.R. 50%			D3
264	<b>Envelope</b> Manufacturing.....	70%	30%	D3
	1. Additional labor, power, heat, etc. (C. 3 $\frac{1}{2}$ ).			
265	<b>European</b> Hotels (see Hotels).			
266	<b>Express</b> Offices .....	50%		D2

277	<b>Flat</b> Occupancies in Mercantile Buildings (see Dwelling Occupancies.)			
278	<b>Feathers</b> and Flowers (Artificial).....	50%		D4
279	<b>Feather</b> Stocks (Upholsterers).....	50%		D3
	Sewing only, no cleaning or renovating.			
	1. Labor (sewing) (C. 2).			
	2. Power (C. 2).			
280	<b>Feather</b> Stocks (Upholsterers).....	60%	20%	D3
	With cleaning or renovating.			
	1. Labor (C. 3).			
	2. Power and furnaces (C. 3).			
	(If shoddy, moss, tow or excelsior is part of stock, see Upholstering Establishments, if labor is done; if not, charge for these materials by the scale for Feed Stores with hay.)			
281	* <b>Feed</b> Mills (not over 1 carload hay or straw)....	120%	100%	D2
	1. Additional labor, power, etc. (C. 4½).			
	If over one carload hay or straw, see Feed Stores (over 1 carload hay or straw) and charges 1 and 2 thereunder.			
282	<b>Feed</b> Stocks, S. R.....	50%		D3
283	<b>Feed</b> Stocks Manufacturing (Poultry, Cattle, Horses, etc.) (No power chopping, grinding or cleaning) .....	60%	20%	D3
	1. Additional labor, power, heat, etc. (C. 3).			
	2. If power chopping or grinding, not over 2 machines .....	30%		
	3. If power cleaning, not over 2 machines....	25%		
	If over two machines in all, mentioned in above items 2 and 3, risk should be rated as a Feed Mill.			
	NOTE: This item should not apply to risks where alfalfa is ground or chopped, for which see special rules for the class.			
284	<b>Feed</b> Stores, no hay or straw.....	50%		D2
285	<b>Feed</b> Stores, with not over 50 bales of hay or straw .....	60%	20%	D3
286	<b>Feed</b> Stores, with not over 100 bales of hay or straw .....	80%	40%	D3
287	* <b>Feed</b> Stores, with not over one carload of hay or straw .....	90%	60%	D3
288	<b>Feed</b> Stores (over one carload hay or straw)....	120%	100%	D3
	If over one car load, rate as Hay Warehouse.			
	1. If power cleaning with Feed Store risks, not over 2 machines.....	25%		
	2. If power chopping or grinding, not over 2 machines, with Feed Store risks.....	30%		

**1      2      3**

	If over 2 machines in all, mentioned in above items 1 and 2, are found in risks rated under 284-7, inclusive, rate as Feed Mill.	
3.	Power with 284 to 286 (C. 3½), with 287 (C. 4); and with 288 (C. 4½).	
289	<b>Filters</b> , Stocks of, with setting up only.....	50% D2
290	<b>Fire Arms</b> , Stocks of (see Sporting Goods).	
291	<b>Fire Engine Houses</b> , no stabling.....	20% D2
	1. Lockup in building (iron cells).....	20%
	2. Wooden cells (cumulative with charge 1).....	50%
	3. If stabling in building.....	10%
292	<b>Fish Stocks</b> (cured) .....	50% D1½
293	<b>Fish and Oyster Stocks</b> (fresh).....	50% D3½
	If cold storage, apply charges in columns 1 and 2 under Cold Storage Warehouses, with the damageability given above.	
294	<b>Fish Net Manufacturing</b> , see Hammock and Net Weaving.	
295	<b>Fixtures</b> , Store and Bank. Charge building rate when insured with building. Charge stock rate when insured with stock or specific.	
296	<b>Flats</b> (see Dwellings).	
297	<b>Flavoring Extract Manufacturing</b> , cold process..	60% 20% D3
	1. Additional labor, power, heat, etc. (C. 3).	
298	<b>Flavoring Extracts</b> , Stocks.....	50% D3
299	<b>Florists' Stocks</b> .....	50% D4
300	<b>Flour</b> in bags or barrels (no mixing).....	50% D1½
	1. Add for not over 2 power machines for mixing or sifting.....	25%
	2. Power (C. 3½).	
	3. If mixing and (or) sifting, over 2 power machines .....	70% 30% D2
	a. Additional labor, power, heat, etc., (C. 3½).	
301	<b>Freight Houses</b> of Transportation Lines, Terminal (to be applied only on specific property of consignors or consignees).....	80% 40%
	The following charges are cumulative with regular structural charges:	
	1. If platform rests on piles and space beneath is not enclosed with spark proof wire netting or other approved enclosure 10% (Cumulative with charge 2, page 9.)	
	2. If wood floor, not filled in with earth or cinders to floor line..... 10% (Reduce charge one-half when so filled.)	
	3. If heated by stoves outside of office..... 10%	
	4. If lighted by kerosene lamps outside of office .....	10%
	5. Gasoline torches or lamps..... 50%	
	6. Locomotives permitted in building..... 25%	
	7. No signs prohibiting smoking outside of office .....	5%
	8. Tugs or steamers moored to dock when not in use .....	30%
	NOTE: Contents take regular differential according to the classified damageability of the property insured.	
302	<b>Fruit Stores</b> .....	50% D3
	1. Banana ripening..... 20%	
	(If steam or hot water heat, no charge.)	

		1	2	3
303	<b>Furnace Stocks</b> (Shop work not over 5 hands)..	50%		D2
	1. Power, heat, etc., (C. 2).			
	If shop work over 5 hands, see Machine Shops.			
304	<b>Furnishing Goods</b> (see Gents' Furnishing Goods).			
305	<b>Furniture</b> , household, stored (see Household Furniture stored.)			
306	<b>Furniture Stocks</b> (new), S. R.....	60%	20%	D2 1/2
	When premises are crowded with goods, crated or wrapped with paper, excelsior, etc., charges may be increased at discretion of raters to.....	70%	30%	D2 1/2
	1. Add for repairs on small scale.....	10%		
	2. Add for upholstering on small scale.....	10%		
	3. Add for varnishing on small scale.....	10%		
	Charges 1, 2 and 3 are to be made where only occasional work is done. If regular work is carried on, see Woodworking or Upholstering.			
307	<b>Furs</b> , retail .....	50%		D3
	Fancy city stocks, class as.....			D3 1/2
308	# <b>Fur Sewing Risks</b> .			
	Coarse Furs.....	50%		D2 1/2
	Fine furs, seal, sable, otter, mink, ermine, etc. ....	50%		D3 1/2
	1. Additional labor, (C. 2).			
	2. Power, heat, etc., (C. 2).			
314	<b>Gambling Houses</b> .....	60%	20%	D4
315	<b>Gambling</b> Rooms, in upper stories of mercantile buildings.....	20%		D4
	1. Cooking, not over one stove, range or furnace .....			15%
	For each stove, range or furnace over one used for cooking, increase above charge one-fifth up to double the charge, counting each five fire pots or fraction thereof in ranges, as one furnace. If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half.			
316	<b>Gas</b> and Electrical Fixtures, stocks of (shop work not over 5 hands).....	50%		D3
	1. Power, heat, etc., (C. 2).			
	2. If lacquering .....	30%		
	3. If buffing or polishing, see charges 14 or 15, Machine Shops.			
	If shop work over 5 hands. see Machine Shops.			

		1	2	3
317	<b>General Merchandise Stocks, R.</b>	50%		D2
318	<b>General</b> Storage Warehouse should rate by stipulation with Warehouseman as follows: a. With Warehouseman's stipulation No. 1. 30% b. With Warehouseman's stipulation No. 2. 60% 20% c. With Warehouseman's stipulation No. 3. 80% 40% d.*With no stipulation except printed policy conditions ..... 120% 100%			
	When policies cover Warehouseman's Storage Charges or liability to customers, they should be issued upon the average contents differential of D.3, and same differential should be applied to property insured for customers when they hold no Warehouse receipt or the receipt does not specifically name the property insured and the kind of packages in which it is contained. When the receipt so describes property, it should take the differential to which it is entitled according to its damageability. If two or more kinds of property are so described, it should take the differential of the most damageable.			
	For full information as to Warehouses and stipulations, etc., see "Listed Warehouses" Supplement.			
	1. If open fires or lights outside of office. a. With Warehouseman's stipulation No. 2. 10% b. With Warehouseman's stipulation No. 3. 50% c. With no Warehouseman's stipulation. 100% 2. No signs posted prohibiting smoking outside of office ..... 20%			
319	<b>Gents' Furnishing Goods, R.</b>	50%		D2
320	<b>Glass.</b> Plate, Stained, Ornamental and Window. a. Goods packed in boxes or crates (no hay or straw) ..... 50% b. Goods packed in hay or straw ..... 60% 20% 1. Labor (polishing, grinding or silvering) with a (C. 2); with b (C. 3). 2. Labor (packing) with b (C. 3). 3. If no bins for packing materials ..... 20% 4. If hay or straw stored in building in excess of 50 bales, grade combustibility by scale for hay in Feed Stores.			D3
321	<b>Glassware, (See Queensware).</b>			
322	<b>Glassware, Hollow (See Bottles).</b>			
323	<b>Glove Stocks, S. R.,</b> a. High grade, Kid, etc. ..... 50% b. Leather, cloth, etc. ..... 50% If manufacturing, see Leather Sewing if Kid or Leather, and Sewing Risks if Cloth.			D3 D2 $\frac{1}{2}$
324	<b>Glucose</b> in barrels ..... 30%			D1
325	<b>Glue</b> ..... 30%			D1 $\frac{1}{2}$
326	<b>Granite Ware</b> ..... 50%			D1
327	* <b>Grease</b> Risks, general, not including large manufacturing establishments or Butcher Shops ..... 70% 30% 1. If melting and (or) mixing by steam in main building ..... 30% 2. If melting and (or) mixing by furnace kettles in main building ..... 60% If in brick or frame outhouse, reduce charges 1 and 2 by proper percentage in Location Table, Appendix, page 16. If separated by space, reduce resulting charge by General Exposure Tables.			D2

	No charge should be made if detached 20 feet or over.		
	3. Additional labor, (C. 3½).		
	4. Power, furnaces, kettles, etc., (C. 3½).		
328	<b>Grease Stocks</b> (no processes) .....	70%	30% D2
329	<b>Groceries</b> , Stocks of:		
	a. Ordinary retail stocks, R.....	50%	D2
	1. Coffee or Spice Grinding, see Groceries, Wholesale.		
	2. Egg Candling by artificial other than elec- tric light.....	10%	
	b. Wholesale (heavy), as sugar, salt, mo- lasses, etc., no wooden, basket or wil- low ware, brooms, oils, matches, cigars or other like combustibles and free from industrial processes.....	50%	D1½
	c. Wholesale entirely free from industrial processes, with a limited supply of wooden, willow and basket ware, brooms, matches, etc., and no oils, fixed ammu- nition or explosives, may at the discretion of the rater, be rated at.....	50%	D3
	d. Wholesale, general stocks.....	60%	20% D3
	1. For each 200 cases of matches in excess of 200.....	5%	
	2. If manufacturing or industrial processes are carried on, the hazards should be analyzed and charges for labor, power, heat, etc., applied on the scale of com- bustibility of the most combustible pro- cess, with a minimum of C. 3 as di- rected in Appendix.		
	3. If power coffee grinding and (or) clean- ing (not cumulative with 4).....	20%	
	4. If power spice grinding, not over 1 mill..	30%	
	(If over one mill, increase charge one- fifth for each mill over one, up to double the charge.)		
	If cigars and tobacco insured specifically under c or d, class cigars and tobacco as		D4
	If policy form excludes cigars and tobacco under c or d, class as.....		D2
330	<b>Gun and Locksmith</b> .....	50%	D2
	1. If forging, see Appendix.		
331	<b>Gymnasiums</b> (see Halls).		

		1	2	3
340	<b>Hair</b> Goods (human and artificial).....	50%		D3½
	1. Additional labor, heat, etc. (C. 1).			
341	<b>Halls</b> (municipal) used only for City Offices and Council Meetings.....	20%		D2
	(If in upper stories of mercantile buildings above charge may be waived).			
	1. If fire engine house with stabling in building .....	10%		
	2. Lockup with iron cells.....	20%		
	3. Lockup with wooden cells.....	50%		
342	<b>Halls</b> , private, including society, lodge or club rooms or private dance halls, no cooking....	10%		D2
	(If in upper stories of mercantile buildings, above charge may be waived).			
	1. Add for cooking, if any.....	10%		
343	<b>Halls</b> , Public or Labor Union, with or without boxed platform stage, no scenery.....	60%		D2
	(If in upper stories of mercantile buildings, above charge may be reduced one-half.)			
	1. Add for cooking.....	10%		
	2. Heated by hot air furnace or stoves.....	5%		
	(This charge applies only when building has no other occupancies).			
	3. If boxed platform stage with small amount of fixed scenery or not over 3 shifts of sliding scenery .....	20%		
	4. Same as No. 3, lighted by gas on stage or in dressing-rooms .....	5%		
	5. Same as No. 3, with gas footlights.....	5%		
	6. Same as No. 3, lighted by other than electric or gas on stage and in dressing-rooms .....	10%		
	7. Same as No. 3, with other than electric or gas footlights.....	15%		
	8. Add for dressing-rooms.....	15%		
	9. If with inclosed platform stage and over three shifts of sliding scenery.....	20%		D3½
	10. Heated by hot air furnace or stoves.....	10%		
	11. Same as No. 9, lighted by gas on stage or in dressing-rooms .....	10%		
	12. Same as No. 9, with gas footlights.....	10%		
	13. Same as No. 9, lighted by other than electric or gas, on stage or in dressing-rooms.	20%		
	14. Same as No. 9, with other than electric or gas footlights .....	30%		
	15. Same as No. 9, with dressing-rooms.....	15%		
	NOTE: If with lifting as well as sliding scenery, and (or) regular theatrical stage, see Theatres.			
344	‡ <b>Hammock</b> and Net Weaving.....	50%		D2½
	1. Additional labor (C. 2).			
	2. Power, heat, etc. (C. 2).			
	3. Pitching furnaces (C. 3½).			
	4. If pitching (cumulative with charge 3 for furnaces) .....	20%		
345	<b>Hardware</b> and Tinware Stocks, no tin work, paints or oils. S. R.....	50%		D2
	1. Labor, shop work (not over 5 hands) (C. 2). No charge for 2 hands.			
	2. Power, furnaces, etc., (C. 2).			
	If paints and oils, see Appendix.			
	If over 5 hands, see Machine Shops.			
346	<b>Hardware</b> Stocks (heavy), no cutlery, shelf or wooden goods .....	50%		D1

		1	2	3
347	<b>Harness</b> and Saddlery Stocks, R.....	50%		D2
	1. Labor (5 hands or under) no charge.			
	2. Collar stuffing, occasional, not over 1 hand 30%			
	If over 5 hands, or if regular collar stuff- ing, rate as Leather Sewing Risk and (or) Collar Factory.)			
348	<b>Hat and Cap</b> Stocks (retail), R.....	50%		D2½
349	<b>Hat</b> Cleaning Shops.....	60%	20%	D3
	1. Additional labor (C. 3).			
	2. Furnaces, dry rooms, etc. (C. 3).			
	3. Gasoline used for cleaning, not over 1 gal- lon gasoline in approved safety cans..... 10%			
	4. If can not approved, or if over 1 gallon gasoline kept in building, see Appendix.			
350	‡ <b>Hat</b> Factories, felt, cloth and silk.....	60%	20%	D2½
	1. Additional labor (C. 3).			
	2. Power, furnaces, dry rooms, etc. (C. 3).			
	3. Pouncing (no blowers)..... 20%			
	4. Singeing ..... 20%			
351	‡ <b>Hat</b> Factories (straw) .....	70%	30%	D3½
	1. Additional labor (C. 3½).			
	2. Power, furnaces, dry rooms, etc. (C. 3½).			
352	‡* <b>Hay</b> Barns and Warehouses (storage only).....	120%	100%	D3
353	‡* <b>Hay</b> Barns or Warehouses with pressing and (or) baling .....	180%	100%	D3
	1. Additional labor, power, etc. (C. 4½).			
354	* <b>Hemp</b> , in mercantile buildings (unhackled), not over 100 bales .....	90%	60%	D3
355	‡* <b>Hemp</b> Warehouses (unhackled).....	150%	150%	D3
356	<b>Hemp</b> , in mercantile building (hackled), not over 100 bales .....	80%	40%	D2
357	‡* <b>Hemp</b> Warehouses (hackled).....	120%	100%	D2
358	<b>Hides</b> and Skins:			
	a. Green Hides, no tallow or grease..... 30%			D1
	b. Dry Hides, no tallow or grease..... 50%			D1½
	If with grease, see Appendix.			
359	<b>Hops</b> in Eales.....	60%	20%	D3
360	<b>Hosiery</b> and Underwear Stocks, S. R.....	50%		D2
361	<b>Hotels</b> (lodging only) .....	60%	20%	D2
	1. If cooking .....			
	For each stove, range or furnace over one used for cooking, baking or laun- dering, increase above charge one-fifth up to double the charge, counting each 5 fire pots or fraction thereof in ranges as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half.			
	2. If baking of bread and (or) pastry, charge for labor engaged in this work on scale of (C. 2).			
	3. If steam laundry, charge for labor engaged in this work on scale of (C. 2).			
	4. Dry rooms, in connection with steam laun- dry, charge according to arrangement. (C. 2).			
	5. Power (C. 2).			
	6. Turkish baths, see charges 2, 3 or 4, Barber Shops. (No charge for Bar or Barber Shops if connected with Hotel.)			
	NOTE: Hotel Furniture in 2-story frame hotels, exclusively occupied as such, may be treated as S. R.			

Summer Resort Hotels, add 50c to final rate, as above.

In small towns ordinary dwellings, constructed as such, without hotel sign, bar or laundry for guests, used for the accommodation of travelers in the absence of a regular hotel ..... 50%  
(No charge for cooking.)

362	<b>House</b> Furnishing Stocks, S. R.....	50%	D2
363	<b>House</b> Painters' Supplies (no paints or oils, mixing or painting) .....	60%	20% D2
	1. If paints and oils, mixing and (or) painting, see Paint Shops.		
364	<b>Household</b> Furniture Warehouses (for stored household goods) .....	90%	60% D3 1/2
365	<b>Household</b> Goods stored in mercantile buildings. Contents of not over 1 household, S. R.....		D3 1/2
	Contents of not over 3 households, S. R.....	70%	30% D3 1/2
	If over 3 lots, see Household Furniture Warehouses.		

373	<b>Ice</b> Cream Factories.....	50%	D2 1/2
	1. Additional labor (C. 1).		
	2. Power, etc. (C. 1).		
374	<b>Ice</b> Cream Parlors.....	50%	D2
375	‡ <b>Ice</b> Factories .....	30%	
	1. Power (C. 1).		
	2. Additional labor (C. 1).		
	Ammonia drums (not attached to refrigerating machinery) if stored in building or in shed adjoining building.....	20%	
	Machinery and Fixtures, class as.....		D1
	Materials and Product, class as.....		D2
	If cold storage, rate as Cold Storage Warehouse.		
376	<b>Ice</b> Houses, small, private, insured apart from main building to which they belong.....	70%	30%
	If within 20 feet of main building to which they belong increase rate of main building 20% of basis rate of ice house.		
377	<b>India</b> Rubber Goods.....	50%	D1 1/2
378‡* <b>Ink</b> (Printing) Manufacturing.....	80%	40% D2 1/2	
	(No oil boiling.)		
	1. Additional labor (C. 4).		
	2. Power, furnaces, etc. (C. 4).		
	(If oil boiling) .....	120%	100% D2 1/2
	1. Additional labor (C. 4 1/2).		
	2. Power, furnaces, etc. (C. 4 1/2).		
379	‡ <b>Ink</b> (Writing) Manufacturing.....	60%	20% D2 1/2
	1. Additional labor (C. 3).		
	2. Power, furnaces, kettles, etc. (C. 3).		
380	<b>Iron</b> and Steel, heavy (see also Steel) .....	30%	D1
381	<b>Iron</b> Pipe and Tubing Stocks.....	30%	D1

389	<b>Jails or Lockups.</b> with iron cells.....	60%	20%	D1
	1. If wooden cells, add.....	40%		
	2. Stabling .....	10%		
390	<b>Japanese Stores</b> (see Chinese Stores).			
391	<b>Japanning</b> and Enameling.....	80%	40%	D2 1/2
	1. Additional labor, power, heat, etc. (C. 2).			
	2. Metal buffing and polishing with approved metal blower system, outside exhaust... (No charge for one small wheel for occasional use.)	10%		
	3. Same as 2 without approved metal blower system .....	50%		
	Increase one fifth for each machine over three up to double the charge. (No charge for one small wheel for occasional use.)			
392	<b>Jewelry Stocks, R.</b> .....	50%		D2 1/2
393	<b>Justice</b> of the Peace Office..... (If in upper stories of mercantile buildings, above charge may be waived.)	20%		D2
394	<b>Junk.</b>			
	a. Metal, rubber and (or) glass only.....	70%	30%	D3
	b. General (except rags or paper).....	80%	40%	D4
	1. Labor, power, heat, etc., with a (C. 3), with b (C. 4). If rags or paper, see Rags or Paper (waste or cuttings).			
395	<b>Jute</b> in bales.....	50%		D2

		<b>1</b>	<b>2</b>	<b>3</b>
405	<b>‡Knitting Works.</b>			
	Woolen .....	60%	20%	D2
	Silks .....	60%	20%	D3
	1. Additional labor (C. 3).			
	2. Power, heat, etc. (C. 3).			
	Cotton, linens, etc. ....	70%	30%	D2½
	1. Additional labor (C. 3½).			
	2. Power, heat, etc., (C. 3½).			
	Where two or more materials are used, all charges should grade by that of high- est combustibility.			
415	<b>Lace and Embroidery Stocks, S. R.</b> .....	50%		D3
416	<b>Ladies' Waists and Dresses, S. R.</b> .....	50%		D3
417	<b>Lamp Stocks, S. R.</b> .....	50%		D3
418	<b>Laundry Offices (no laundering)</b> .....	50%		D2½
419	<b>Laundries (hand), small</b> .....	60%	20%	D2½
420	<b>Laundries (steam)</b> .....	80%	40%	D2½
	1. Additional labor (C. 2).			
	2. Dry room, according to arrangement (C. 2), see Appendix.			
	3. Power (C. 2).			
	4. Gasoline cleaning, not over 1 gallon gaso- line in approved safety can, no charge.			
	5. If gasoline not in approved safety can....	10%		
	6. If over 1 gallon gasoline, see Cleaning Establishments (Naphtha, etc.)			
421	<b>Lead</b> in ingots or pigs (see Brass, Copper, Tin and Lead in ingots or pigs.)			
422	<b>Leather Stocks.</b>			
	a. Rough, heavy and sole, S. R. ....	50%		D1
	b. Harness grain, split and calf, including findings .....	50%		D2
	c. Fancy, morocco, sheep, goat, kid, shagreen and patent, including findings.....	50%		D2½
423	<b>‡Leather Sewing and Cutting</b> , embracing all risks where leather is sewed, cut or cemented (ex- cepting cobblers, harness shops and collar factories) .....	50%		
	Class rough, heavy and sole as.....			D1
	Class harness, grain, split and calf, including findings, as .....			D2
	Class morocco, sheep, goat, kid, patent and fancy, including findings, as.....			D2½
	1. Additional labor and power (C. 2).			
	2. Furnaces (C. 2). (Not applicable to devices covered under items 9, 10 and 11.)			
	3. Harness oiling .....	5%		
	(Not cumulative with 4.)			

1      2      3

4.	Harness dipping .....	15%	
5.	Combustible cement that <i>does not require heating</i> , used from closed cans under regular printed permit, limited to one day's supply .....	30%	
6.	Combustible cement that <i>requires heating</i> and (or) inking, dyeing or blacking with materials thinned with benzine, naphtha or other like volatile combustibles or their compounds, used from closed cans under regular printed permit, limited to one day's supply .....	100%	
7.	If dyeing or inking of edges only with materials thinned as above described, if kept in metal receptacle, not exceeding one pint capacity..... (Not cumulative with 6.)	10%	
8.	If drying or goods dyed, inked or blacked with materials thinned as above described .....	100%	
9.	Wax or pitch cups, not on machines, heated by coal or oil stoves..... (If heated by gas or electricity, reduce charge one-half. If by steam, no charge.)	25%	
10.	Heating devices on stitching or edge-finishing machines, heated by oil..... (If heated by gas or electricity, reduce charge one-half. If by steam, no charge.)	25%	
11.	Heating Tools in metal boxes. a. If by metal lamps..... b. If by glass lamps or oil stoves..... (If in wooden boxes, double charges a or b.)	20% 30%	
12.	Storage of loose cuttings or refuse in building, except in fireproof room cut off....	20%	
13.	Heel or Edge Machines or other buffering or sanding machines with metal blower with outside exhaust.....	10%	
14.	If without blowers or with blowers having no outside exhaust..... (Increase charge one-fifth for each machine over 3 up to double the charge.)	50%	
15.	Wooden heel making..... (Not cumulative with charge 16.)	30%	
16.	Wooden last making (not over 5 hands). If over 5 hands, charge for additional hands engaged in woodwork on scale of (C. 4).	40%	
17.	No approved waste cans for scrapings from cutting boards.....	50%	
18.	If more than one day's supply of rubber or other cement, dye or volatile fluid combustibles kept in building, see Gasoline Storage, page 24, Appendix.		
19.	Sole or heel drying in metal or wooden boxes, see Dry Heat Boxes, page 22, Appendix.		
20.	Collar making on small scale in Harness Factories, not over one day's supply of stuffing material in building..... If stuffing material over one day's supply, or over 5 stuffers. rate as Collar Factory.	50%	
424	<b>Libraries</b> (circulating or public)..... (If in upper stories of mercantile buildings, above charge may be waived.)	20%	D2 $\frac{1}{4}$
425	<b>Lime</b> .....	70%	30%
426	<b>Linens</b> (Stocks of) S. R..... <i>b</i>	50%	D2

		1	2	3
427	<b>Liquors</b> , wholesale (no rectifying) .....	50%		D2
	1. Labor, rectifying (cold process) or bottling (C. 2).			
	2. Power, heat, etc. (C. 2).			
428	<b>Livery</b> Stables (see Stables).			
429	<b>Locksmiths</b> (see Gunsmiths).			
430	<b>Lodge Rooms</b> (see Halls, private).			
431	<b>Lodging</b> Houses (see Boarding and Lodging Houses).			
441	‡ <b>Macaroni</b> Manufacturing .....	50%		D3 1/2
	1. Additional labor (C. 2).			
	2. Power, furnaces, dry rooms, etc. (C. 2).			
442	<b>Machinery</b> Stocks .....	50%		D2
443	‡ <b>Machine</b> Shops.			
	NOTE: Where an occupancy listed elsewhere in Alphabetical List is classed under this item, the damageability of such oc- cupancy should apply.			
	a. Dry stamping or turning, drilling and boring without oils, no wood working (C. 2). .....	70%	20%	D2
	b. Turning, drilling, boring, etc., with oils, no woodworking (not over 5 hands) (C. 2). .....	70%	20%	D2
	c. Turning, drilling, boring, etc., with oils, no wood working (over 5 hands) (C. 3). 1.	90%	30%	D2
	1. Additional labor with <i>a</i> (C. 2); with <i>c</i> , (C. 3).			
	2. Power, heat, etc., with <i>a</i> or <i>b</i> (C. 2); with <i>c</i> (C. 3).			
	3. Forging, if any, see page 20, Appendix.			
	4. If noncombustible floor where turning, drilling or boring is done, decrease column 1 charge under <i>a</i> or <i>b</i> 10 points, and under <i>c</i> 20 points.			
	5. Brass Furnace:			
	(aa) On concrete, brick or cement floor on iron I beams.....	40%		
	(bb) On wood floor with approved protec- tion .....	60%		
	Increase charges one fifth for each brass furnace over one up to double the charge. Furnaces connected with other processes should be counted as “additional” with brass furnaces.			
	(cc) If clearance from furnace to combustible material is less than 10 feet and furnace is not provided with a venti- lating hood with not less than 2 feet clearance from hood to combustible material .....	50%		

		<b>1</b>	<b>2</b>	<b>3</b>
6.	Brass casting floor not approved.	50%		
7.	Gasoline testing (not over 1 gallon gasoline)	30%		
8.	If gasoline used for washing and (or) cleaning, not over 1 gallon gasoline in approved safety can.	10%		
	If over 1 gallon in approved safety cans, see Appendix.			
9.	If gasoline used for washing and (or) cleaning with gasoline outside of approved safety cans.	100%		
10.	Painting, occasional	10%		
11.	Painting, enameling, lacquering or dipping (regular)	30%		
12.	Dip Tank with cover	20%		
13.	Dip Tank without cover.	40%		
	(Increase charges 12 and 13 one fifth for each additional tank up to double the charge.)			
	NOTE: If dipping in material thinned with benzine, naphtha, or other like volatile combustibles or their compounds, double charges 12 and 13.			
14.	Metal buffering or polishing, with approved metal blower system, outside exhaust... (No charge for one small wheel.)	10%		
15.	Same as 14 without approved metal blower system	50%		
	(Increase one fifth for each machine over 3 up to double the charge. No charge for one small wheel for occasional use.)			
16.	Emery grinding with approved blower system, in room without power wood-work, buffering, painting or dipping.... Double the charge if without approved metal blower system. (No charge for one or two small wheels.)	5%		
17.	Same as 16, in rooms with power wood-working, buffering, painting or dipping... Double the charge if without approved metal blower system. (No charge for one or two small wheels.)	30%		
18.	If woodworking, see Woodworking; apply charges under 1, 2 and 3 according to combustibility of occupancy, also items 4-9 and 14-17. Charges for painting and (or) dipping should be made on scale for woodworking.			
19.	If automobiles permitted in building, not over 2 machines, with warranty that no charging of machines is done.	30%		
20.	If automobile charging, see charges under Automobile Stocks. If over 2 machines, see Automobile Stocks.			
444	<b>Mantels</b> , Stocks of.....	50%		D2 $\frac{1}{2}$
445	<b>Marble</b> Shops .....	50%		D2 $\frac{1}{2}$
	If high grade carvings.			D4
	1. Additional labor (C. 1).			
	2. Power (C. 1).			
446	<b>Marble</b> Stocks .....	50%		D2 $\frac{1}{2}$
	(High-Grade Carvings, see Statuary.)			
447	<b>Markets</b> (public) .....	60%	20%	D3
448	<b>Markets</b> (vegetable) .....	50%		D3
449	‡ <b>Mattress</b> Factories (upholstering), using hair and (or) cotton felt only.	70%	30%	D3
	1. Additional labor, power, heat, etc. (C. 3 $\frac{1}{2}$ )			
	2. Picker, hand.....	25%		

		1	2	3
3.	Picker, power .....	50%		
	(Charges 2 and 3 for picker may be reduced one-half if in a metal-lined room with steam jet.)			
450	**Mattress Factories (upholstering), using moss, tow, shoddy, excelsior, cotton, etc. ....	120%	100%	D3
1.	Additional labor, power, heat, etc. (C. 4). ....	50%		
2.	Picker, hand .....	50%		
3.	Picker, power .....	100%		
	(Charges 2 and 3 for picker may be reduced one-half if in a metal-lined room with steam jet.)			
451	‡Mattress Factories (wire):			
a.	Cold metal work only.....	50%		D2
b.	Metal work other than cold.....	60%	20%	D2
1.	Additional labor, power, heat, etc., with a (C. 1), with b (C. 2).			
	If woodwork, see Woodworking.			
452	*Mattress Material Stocks, with tow, shoddy, moss, excelsior, etc.....	80%	40%	D3
	If small quantities of tow, shoddy, moss, excelsior, etc., see scale of Hay, with Feed Stores.			
453	Meat Shops (see Butcher Shops).			
454	Men's Furnishing Goods (see Gents' Furnishing Goods).			
455	Merchant Tailors, with cutting only, no making, pressing or cleaning (not over 10 hands), R. ....	50%		D2
	(If over 10 hands, see Sewing Risks.)			
456	Merchant Tailor Stocks, with making (see Tailors).			
457	Metals in ingots or pigs (see Brass, Copper, Tin and Lead in ingots or pigs).			
458	Milk Risks.			
a.	Depots (no processes) .....	50%		D3
b.	‡Skimming Stations, bottling and (or) condensing works.....	50%		D3
1.	Additional labor, power, heat, etc. (C. 2). ....			
2.	If box making, no power woodworking machines, except saws, nailers and (or) boring machines .....	30%		
3.	If Tin Can making.....	10%		
	(Cumulative with charges under No. 1.)			
4.	If cold storage, see Cold Storage Warehouses, making such charges as specifically apply for cold storage features.			
459	Millinery Parlors, small sample stocks only... ....	20%		D4
	(If in upper stories of mercantile buildings, above charge may be waived.)			
460	Millinery Stocks (retail).....	50%		D4
461	Mill Supplies .....	50%		D2 $\frac{1}{2}$
462	Mineral Water Stocks.....	50%		D1 $\frac{1}{2}$
463	Mineral Water Factories, see Bottling Works.			
464	Molasses in barrels.....	30%		D1 $\frac{1}{2}$
465	Motor Cycle Stocks.....	70%	30%	D3
1.	Labor (repairing) (C. 3 $\frac{1}{2}$ ). ....			
2.	Power, heat, etc. (C. 3 $\frac{1}{2}$ ). ....			
3.	Charging with gasoline ,see charge 4, Automobile Stocks.			
4.	Gasoline used for washing and (or) clean outside of approved safety cans.....	130%		

5.	Gasoline in building outside machines in excess of one barrel:			
a.	Not over one barrel excess.....	100%		
b.	For each additional barrel.....	50%		
6.	Lighting and heating in rooms where gasoline is handled or stored, or filled machines are kept, see charge 7, Automobile Stocks.			
466	<b>Mouldings, Stocks of.....</b>	70%	30%	D3
467	<b>Moving Picture Films, Stocks of, in original packages .....</b>	70%	30%	
1.	If films are removed from original packages and (or) are repaired, rate as Moving Picture Film Exchange.			
2.	If small exhibition room with moving picture machine, charge for machine by scale of charges under Moving Picture Theatres.			
	Class Films and Machines as double.....			D4
	Class Films in approved vaults or safes as...			D4
	Class other contents as.....			D2
468	<b>Moving Picture Films, Exchanges.....</b>	80%	40%	
1.	Labor (film repairing) (C. 4).			
2.	Repairing of moving picture machines (small) .....	10%		
3.	If no approved metal waste cans or metal boxes for scraps of film.....	30%		
4.	If smoking permitted, see After Charges.			
5.	If small exhibition room with moving picture machine, charge for machine by scale of charges under Moving Picture Theatres.			
6.	If staging of acts or plays for moving picture film manufacture, charge for stage, scenery, dressing rooms, etc., by scale of charges under Halls (public).			
7.	If scenery painting by other than water color .....	30%		
8.	Where entire stock of films (except those in actual process of being repaired or rewound) is stored in standard fire proof vaults or safes at all times, occupancy charges given above may be reduced to.. and film repairing charged for as labor (C. 3½).	70%	30%	
	Class Films and Machines as double.....			D4
	Class Films in approved vaults or safes as .....			D4
	Class other contents as.....			D2
	Note: Where repairing is done in entire metal-lined room room or its equivalent, and no films except those in actual process of being repaired or rewound are allowed in room, and room does not communicate directly with any vault or room where films are stored, above charges for repairing may be reduced one-half.			
469	<b>Moving Picture Theatres.</b>			
a.	Machine enclosed in standard booth, as per specifications .....	80%		
b.	Machine enclosed in wood, metal-lined booth, with all openings and ventilation as per standard specifications.....	80%	40%	
c.	Machine not enclosed or in wooden booth not metal lined.....	90%	60%	

1      2      3

1.	If machine under item <i>a</i> , <i>b</i> or <i>c</i> not equipped with shutter in front of condenser, as per specifications, add.....	10%	
	Class machine and films as double.....		D4
	Class other contents as.....		D2
	Note: If with scenery (not lifting), dressing rooms, footlights, etc., see charges under Halls (Public or Labor Union). If with lifting as well as sliding scenery and (or) regular theatrical stage, class as Theatre, and apply above charges in columns 1 and 2 for moving picture machine occupancy.		
470	<b>Music Stores</b> (no repairs) S. R.....	50%	D3
	1. Labor (repairs) (C. 3).		
	2. Furnaces (C. 3).		
477	<b>Natatoriums</b> .....	30%	D2
478	<b>Newsdealers'</b> and Stationers' Stocks, S. R....	50%	D3
	(No charge for occupancy of small newsstands in mercantile buildings.)		
479	<b>Notions</b> .....	60%    20%	D3
480	<b>Novelties</b> Manufacturing, see Advertising Novelties.		
481	<b>Nuts</b> (peanuts), without shelling and cleaning...50%		D2
	1. Furnaces, if any (C. 2).		
482	<b>Nuts</b> (peanuts), with shelling and (or) cleaning. 70%    30%		D2
	1. Labor (C. 3).		
	2. Power (C. 3).		
	3. Furnaces, if any (C. 3).		

		1	2	3
490	<b>Oakum</b> , on Storage. a. Ships' Oakum (not over 100 bales)..... b.*Plumbers' Oakum (not over 100 bales).. (When stored in same premises with a mercantile stock, the above classification should be used for entire contents, when higher than that of the stock itself.)	70%	30%	D3
		80%	40%	D3
491	<b>Office</b> Justice of the Peace (see Justice of the Peace).			
492	<b>Offices</b> of Professional Men, Insurance and Real Estate Agents, etc., on ground floor, S. R... (If in upper stories of mercantile buildings, no charge.)	20%		D2
493	<b>Oil</b> Cloths, Stocks, including linoleum, S. R.....	50%		D1½
494	<b>Oiled</b> Clothing, see Ship Chandler Stocks.			
495	<b>Oils</b> , including vegetable, animal and fish oils, lard, tallow and other non-volatile, no pro- cesses .....	70%	30%	D2
	Star if over 50 barrels.			
496	* <b>Oils</b> , general stock of, not including any of the products of petroleum except standard kero- sene .....	80%	40%	D2
	1. If mixing by steam in main building or frame outhouse less than 20 feet distant.	30%		
	2. If mixing by furnace kettles in main build- ing or frame outhouse less than 20 feet distant .....	60%		
	3. Furnace, kettles, etc. (C. 4).			
497	* <b>Oils</b> , including Crude Petroleum and its lighter products, as gasoline, naphtha, benzine, etc..	200%	200%	D2
498	<b>Opera</b> Houses (see Theatres).			
499	<b>Opticians</b> .....	20%		D3
	(If in upper stories of mercantile buildings, above charge may be waived.)			
500	<b>Oriental</b> Rug Stocks, Turkish, Persian, Japanese, etc., S. R.....	50%		D2½
501	<b>Overall</b> Factories (see Sewing Risks.)			
502	<b>Over</b> Gaiters, manufacturing (see Sewing Risks.).			

		<b>1</b>	<b>2</b>	<b>3</b>
510	<b>Paints</b> , dry colors.....	50%		D2 $\frac{1}{2}$
511	<b>Paints</b> , small unbroken package stocks.....	50%		D2
	If wall paper, class entire stock as.....			D3 $\frac{1}{2}$
512	<b>Paints</b> and Oil Stores, small retail (not over 5 barrels not including dry colors and stock in original packages not exceeding 10 gallons capacity) .....	60%	20%	D2
	(If wall paper, class entire stock as D3 $\frac{1}{2}$ .)			
	1. If mixing by hand or painting on premises.	30%		
513	<b>Paints</b> , Oils and Varnish Stocks (no processes) (not over 15 barrels not including dry colors and stock in original packages not exceeding 10 gallons capacity) .....	70%	30%	D2
	1. Oil drawing.....	30%		
	2. If over 15 barrels or if grinding or mixing, see next item.			
514	* <b>Paints</b> , Oils and Varnish, large stocks.....	70%	30%	D2
	1. If oil drawing.....	30%		
	2. If mixing by hand in main building or frame outhouse less than 20 feet distant	30%		
	3. If mixing by power in main building or frame outhouse less than 20 feet distant	60%		
	4. Labor (C. 3 $\frac{1}{2}$ ).			
	5. Power and heat (C. 3 $\frac{1}{2}$ ).			
	6. If grinding (see Paint and Color Works).			
	7. If open lights, including open arc lights and (or) fire heat in stock rooms, see Appendix.			
	8. Incandescent Electric Lights not in vapor proof globes, with keyless sockets and swinging lights not also protected by wire guards in stock rooms.....	50%		
	(Not cumulative with charge 7).			
515	‡ <b>Paint</b> and Color Works (dry colors only).....	60%	20%	D2
	1. Additional labor, power, heat, etc., (C. 2).			
	2. If power grinding.....	30%		
516	‡* <b>Paint</b> and Color Works (no Naphtha used).....	150%	100%	D2
	1. Additional labor, power, heat, etc., (C. 4).			
	(See charges 7 and 8, No. 514.)			
517	‡* <b>Paint</b> and Color Works (Naphtha used, limited to one day's supply).....	200%	150%	D2
	1. Additional labor, power, heat, etc., (C. 4 $\frac{1}{2}$ ).			
	(See charges 7 and 8, No. 514.)			
518	‡* <b>Paint</b> and Color Works with Naphtha not limited to one day's supply.....	300%	200%	D2
	1. Additional labor, power, heat, etc., (C. 5).			
	(See charges 7 and 8, No. 514.)			
519	<b>Paint Shops</b> .....	80%	40%	D2
	1. Additional labor, heat, etc., (C. 3 $\frac{1}{2}$ ).			
	2. If woodwork see Woodworking.			
520	<b>Paper Bags</b> .....	50%		D3
521	<b>Paper Bag Factories</b> .....	60%	20%	D3
	1. Additional labor, power, heat, etc., (C. 3).			
522	<b>Paper Box Making</b> (see Box Factories, paper).			
523	<b>Paper</b> , general stocks.....	50%		D2 $\frac{1}{2}$
	If ruling, cutting or other processes.			
	1. Labor (C. 2).			
	2. Power (C. 2).			
524	<b>Paper Pattern</b> , Manufacturing.....	70%	30%	D3 $\frac{1}{2}$
	1. Additional labor, power, heat, etc., (C. 3 $\frac{1}{2}$ ).			
525	<b>Paper Pattern Stocks</b> (retail).....	50%		D4

		<b>1</b>	<b>2</b>	<b>3</b>
526	<b>Paper</b> Stocks (waste or cuttings) baled, no sorting .....	70%	30%	D3
527	* <b>Paper</b> Stocks (waste or cuttings) with sorting and baling..... 1. Labor, power, heat, etc., (C. 4).	80%	40%	D3½
528	<b>Paper</b> , Stocks.....	50%		D2½
529	<b>Paper</b> (wall paper), Stocks..... If Paints (see Paint and Oil Stores).	50%		D3½
530	<b>Paste</b> Manufacturing..... 1. Additional labor (C. 2). 2. Power, furnaces (C. 2).	60%	20%	D2½
531	<b>Patent</b> Medicine Stocks. If non-inflammable ingredients..... If ointments or inflammable ingredients....	50%		D3
532	# <b>Patent</b> Medicine Factories, cold process, non-inflammable ingredients..... 1. Additional labor (C. 3). 2. Power and Heat (C. 3).	60%	20%	D3
533	<b>Patterns</b> in use.....			D3
534	<b>Pawnbrokers</b> , Jewelry only, S. R.....	50%		D2½
535	<b>Pawnbrokers</b> , general including second-hand clothing, S. R.....	60%	20%	D3
536	<b>Peanuts</b> , (see Nuts).			
537	<b>Penny</b> Arcades..... 1. If photographing..... 2. If Pop Corn roasters..... 3. Shooting gallery, no charge. 4. Candy Kettles, charge as (C. 2).	50%		D3½
538	# <b>Perfumery</b> Manufacturing (cold process)..... 1. Additional labor (C. 3). 2. Power and Heat (C. 3).	60%	20%	D3
539	<b>Perfumery</b> Stocks, S. R.....	50%		D3
540	<b>Phonograph</b> Stocks, S. R..... Class stock other than records as..... Class records as.....	50%		D3 D4
541	<b>Photograph</b> Galleries, S. R..... (If in upper stories of mercantile buildings, above charge may be reduced one-half).	50%		D4
542	<b>Photographers</b> , commercial..... 1. Labor (C. 3).	60%	20%	D4
543	<b>Photographers'</b> Supply Stocks..... No acids or chemicals kept outside of safe or vault.	50%		D4
544	<b>Photographers'</b> Supply Stocks..... Acids or chemicals not kept in safe or vault.	60%	20%	D4
545	<b>Piano</b> Stocks..... 1. Labor, repairs (C. 3).	50%		D3
546	<b>Pickles</b> with or without bottling..... 1. Additional labor (C. 2).	50%		D2½
547	# <b>Pickle</b> Factories (pickling in brine and barrel-ing only)..... 1. Additional labor (C. 1).	50%		D2½
548	# <b>Pickle</b> and <b>Preserve</b> Factories. a. Output packed in glass and boxed on premises..... b. Output packed in tins, kegs or barrels..... 1. Additional labor, power, furnaces, etc., with a (C. 3½) with b (C. 3). 2. If recoopering or box making, no power woodworking machines, except saws, nailers and (or) boring machines..... 3. Varnishing or painting, occasional..... 4. Varnishing or painting, regular.....	70%	30%	D2½
		60%	20%	D2½

		1	2	3
	5. Tin can making..... (Cumulative with charges under No. 1).	10%		
	6. If printing or lithographing on tin.....	10%		
549	<b>Picture Frame Stores</b> ..... 1. Labor, (framing) (C. 3).	60%	20%	D3
550*	<b>Picture Frame Factories</b> , with whitening, gilding and compo work only..... 1. If painting, finishing and (or) dipping.. 2. Additional labor, power, heat, etc., (C. 3 1/2). 3. If dip tanks or power woodworking, see Woodworking.	80%	40%	D3
551	<b>Picture Mouldings</b> , see Mouldings.			
552	<b>Pitch</b> , Tar, etc., see Roofing materials.			
553	<b>Plated Ware</b> , Stocks (shop work not over 5 hands) .....	50%		D2 1/2
	1. Power, furnaces, etc., (C. 2). 2. If buffing or polishing, see charges 14 or 15. Machine Shops. If over 5 hands, see Plated ware manufacturing.			
554	<b>Plated Ware</b> Manufacturing..... 1. Additional labor, power, heat, etc., (C. 2). 2. If buffing or polishing, see charges 14 or 15, Machine Shops.	60%	20%	D2 1/2
555	<b>Plumbers and Steam Fitters Supplies and Shops</b> .....	50%		D1 1/2
	1. Additional labor, power, heat, etc., (C. 2) 2. If buffing or polishing, see charges 14 or 15, Machine Shops.			
556	<b>Pop Factories</b> (see Soda Water Factories).			
557	<b>Post Offices</b> .....	50%		D2
558	<b>Poultry Killing and Packing Houses</b> ..... 1. If feather drying, add..... 2. Candling by artificial other than electric light in metal lined room..... 3. Candling by artificial other than electric light in the open.....	80%	40%	D3
	1. If without machinery except boiler and boiler feed pump give all contents same rate as building. If with machinery other than electrical, class all contents..... If with electrical machinery, class all contents .....	20%	10%	
559	<b>Power Houses</b> (no cobs, wood, shavings or sawdust fuel) .....	30%		
	1. Additional labor, power, heat etc., (C. 1). If without machinery except boiler and boiler feed pump give all contents same rate as building. If with machinery other than electrical, class all contents..... If with electrical machinery, class all contents .....			
560	<b>Preserving Establishments</b> (see Pickle and Preserving Works).			
561	<b>Printing</b> (private) with office, mercantile or industrial occupancies, not over 3 presses..... (Increase one-fifth for each press over three up to double the above charge). 1. Power, heat, etc., charge by combustibility of main occupancy. 2. Gasoline used for cleaning, not over 1 gallon in approved safety can, no charge. 3. If can not approved or if over 1 gallon gasoline kept in building, see Appendix.	15%		D1 D2

4.	Presses take same rate as other contents. <i>(If cylinder press or eight small presses, rate under 565, charging for power, heat, etc., according to combustibility of main occupancy with minimum of (C. 3½).)</i>		
562	<b>Printing, Composing</b> only, not over 10 compositors .....	50%	D2
	<i>If in upper story of a mercantile building, above charge may be reduced one-half.</i>		
	1. Additional labor (C. 1).		
	2. Power heat, etc., (C. 2).		
	<i>Furnaces with Linotype machines may be waived.</i>		
	3. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.		
	4. If can not approved or if over 1 gallon gasoline kept in building, see Appendix.		
563	<b>Printing, small job, hand or foot power, not over 3 presses.</b> .....	60%	D2
	1. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.		
	4. If can not approved or if over 1 gallon gasoline kept in building, see Appendix.		
564	<b>Printing</b> small job, power, with not over three presses, or newspaper establishments... .....	70%	D2
	<i>If in upper stories of a mercantile building, above charges may be reduced one-half.</i>		
	1. Additional labor, power, heat, etc., (C. 3).		
	<i>Charge for furnaces with Linotype may be waived.</i>		
	2. Stereotyping .....	10%	
	3. Electrotyping .....	10%	
	4. If ink regrinding .....	30%	
	5. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.		
	6. If can not approved, or if over 1 gallon gasoline kept in building, see Appendix.		
565	<b>Printing.</b> Job, with over 3 presses or, <b>Printing</b> and Bookbinding Establishments.....	70%	30%
	1. Additional labor, power, heat, etc., (C. 3½).		D3
	2. Stereotyping .....	10%	
	3. Electrotyping .....	10%	
	<i>(Furnaces with Linotype machines may be waived).</i>		
	4. If ink regrinding .....	30%	
	5. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety can, no charge.		
	6. If not approved, or if over 1 gallon gasoline kept in building, see Appendix.		
566	<b>Printers' Ink</b> manufacturing, see Ink (printing).		
567	<b>Produce</b> , general country, embracing apples, potatoes, onions, etc., cured meats, hides, wool, flour, grain, seeds in bags, cheese, butter, etc., but not hay, hemp, straw, tobacco, broom corn, cotton or other high combustibles, nor property in cold storage.....	50%	D3
568	<b>Public Halls</b> (see Halls).		
569	<b>Pumps</b> , stocks of a. Metal only..... b. Wood or metal and wood.....	30% 50%	D1 D2

575	<b>Queensware</b> and Glassware (no packing or unpacking) S. R.....	50%	D3
	1. Labor, packing or unpacking (C. 3). . . . .	20%	
	2. If no bins for packing materials.....	20%	
	3. If hay or straw stored in building in excess of 1 day's supply, grade combustibility by scale for hay in feed stores.	50%	
578	<b>Racket Stocks</b> , S. R.....	60%    20%	D3
579	* <b>Rags</b> and Junk.....	150%    150%	D4
	1. Add for sorting and baling.....	20%	
	2. Add for cutting or dusting.....	50%	
580	<b>Rags</b> , Baled (washed) and Tailors' Clippings (clean), no assorting or baling.....	70%    30%	D3½
581	<b>Rags</b> (Tailors' Clippings (clean) only) with assorting and (or) baling.....	90%    60%	D4
	1. Additional labor, power, heat, etc. (C. 4). . . . .		
582	<b>Railway Supply Stocks</b> (no waste or wooden goods) .....	50%	D2
583	<b>Railway Supply Stocks</b> (general, with waste and wooden goods).....	60%    20%	D2
584	<b>Rattan</b> and Willow ware Stocks.....	60%    20%	D3
585	‡ <b>Rattan</b> Goods Factory.....	70%    30%	D3
	1. Additional labor, (C. 3½). . . . .		
	2. Power, furnaces, etc., (C. 3½). . . . .		
	3. If singeing.....	50%	
	When found with separate warehouse for storage of manufactured goods, class all contents as .....		D2
586	‡ <b>Rectifying</b> Establishments (cold process).....	60%    20%	D2
	1. Additional labor, heat, etc., (C. 3). . . . .		

		1	2	3
587	<b>Refrigerators</b> (ice chests), Stocks of.....	50%		D2 $\frac{1}{2}$
588	<b>Restaurants</b> , S. R., no cooking, except coffee, tea or cocoa making.....	50%		D3
	1. If cooking not over one stove, range or furnace .....	25%		
	For each stove or furnace over one, used for cooking, baking or laundering, increase above charge one-fifth up to double the charge, counting each 5 fire pots, or fraction thereof in ranges as one furnace.			
	If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional de- vices one-half.			
	2. If baking of bread and (or) pastry, charge for labor engaged in this work on scale of (C. 2).			
	3. If Steam laundry, charge for labor en- gaged in this work on scale of (C. 2).			
	4. Dry Rooms in connection with Steam laundry, charge according to arrange- ment (C. 2).			
	5. Power (C. 2).			
589	<b>Roller</b> Polo Rinks (see Skating Rinks).			
590	<b>Roofing</b> Materials, felt, pitch, paper, etc.....	70%	30%	D2
591	<b>Rope and Cordage Stocks</b> , heavy (no twine)....	50%		D1 $\frac{1}{2}$
592	<b>Rubber</b> Stamp Manufacturing.....	50%		D3
	(If stencil or brand making, see Stencil. Stamp, Brand, Seal and Badge Manu- facturing).			
	1. Additional labor, power, furnaces, etc., (C. 2).			
593	<b>Rubber</b> Tire Stocks and Repair Shops.....	50%		D1 $\frac{1}{2}$
	1. Additional labor, power, heat, etc. (C. 2).			
	2. If combustible cement used.....	30%		
	3. If over 1 day's supply of combustible ce- ment, see charges for gasoline storage in Appendix.			
	4. Gasoline washing and (or) cleaning, not over 1 gallon gasoline in approved safe- ty can .....		10%	
	5. Gasoline washing and (or) cleaning except in approved safety cans.....		100%	
594	<b>Rugs</b> (see Carpets and Rugs, or Oriental Rugs).			

		1	2	3
599	<b>Safes</b> , Iron, Stocks of (repairing, not over 5 hands) 1. Power, heat, etc., (C. 2). If over 5 hands, see Machine Shops.	50%		D1 $\frac{1}{4}$
600	<b>Sail</b> and Rigging Lofts..... If sewing, see Sewing Risks.	50%		D2 $\frac{1}{2}$
601	<b>Salvation Army</b> Meeting Rooms (see Schools).			
602	<b>Saloons</b> , S. R. a. With or without billiards or bowling, no restaurant b. With hot lunch..... c. Saloons with restaurants, see Restaurants.	50%	60%	D2 $\frac{1}{2}$ D2 $\frac{1}{2}$
603	<b>Saloon</b> and Bar Furniture and Fixtures, Stocks of, see Furniture.			
604	<b>Salt</b> .....	50%		D2
605	<b>Saltpeter Bag</b> Cleaning..... 1. Additional labor, power, heat, etc. (C. 4).	90%	60%	D2 $\frac{1}{2}$
606	<b>Saltpeter</b> .....	80%	40%	D3
607	<b>Sanitariums</b> , private (not over 20 rooms)..... 1. Cooking for patients, not over one stove, range or furnace..... For each stove, range or furnace over one used for cooking, increase above charge one-fifth up to double the charge, counting each 5 fire pots, or fraction thereof, in ranges as one furnace. If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional furnaces one-half. (If over 20 rooms, see Hotels).	50%	15%	D2
608	<b>Scales</b> , Stocks of (repairing not over 5 hands)..... 1. Power, heat, etc., (C. 2). If over 5 hands, see Machine Shops.	50%		D2
609	* <b>Scenery</b> .....	80%	40%	D4
610	<b>Schools</b> or Salvation Army Meeting Rooms in upper stories of mercantile buildings... (Single rooms used as studios by teachers of music, etc., no charge). When the ground floor of a mercantile building has been abandoned to School or Salvation Army Barracks, add to basis rate .....	10%		D2
611	<b>School Supply</b> Stocks, S. R.....	60%	20%	D2 $\frac{1}{2}$
612	Seal Manufacturing (see Stencil Manufacturing).			
613	<b>Second-hand</b> Clothing Stocks, S. R.....	60%	20%	D3
614	<b>Second-hand</b> Furniture, S. R..... 1. If repairs, on small scale..... 2. If upholstering, on small scale..... 3. If painting or varnishing, occasional..... Charges 1, 2 and 3 are to be made where only occasional work is done. If regular work is carried on, see Woodworking or Upholstering.	70%	30%	D3
615	<b>Seeds</b> , Flax, Hemp, Beans and other field seeds (on storage)..... 1.Labor (cleaning by hand) (C. 2). 2. Cleaning by power, not over 2 machines.. a. Power (C. 3 $\frac{1}{2}$ ). If over 2 power cleaners..... a. Additional labor, power, etc. (C. 3 $\frac{1}{2}$ )	50%	25%	D2
616	<b>Seed</b> Stores .....	70%	30%	D4

		1	2	3
617	<b>Sewing</b> Machine Stocks (repairs, not over 5 hands) .....	50%		D2 $\frac{1}{2}$
	1. Power, heat, etc. (C. 2). If over 5 hands, see Machine Shops.			
618	‡ <b>Sewing</b> Risks, embracing all risks where cutting and (or) sewing is done by hand, or sewing machines on textile fabrics, including awnings, tents, flags, bags, tarpaulins, garments, etc., excepting Milliners, Dress-makers and Tailors, which see:			
	a. Woolens .....	50%		D2
	b. Silks and Elastic Goods.....	50%		D3
	c. Linens, Cottons, and other vegetable fabrics .....	60%	20%	D2 $\frac{1}{2}$
	d. Shoddy, sweat-shop goods or cheap dyed cottons, overalls, etc.....	70%	30%	D2 $\frac{1}{2}$
	NOTE: When two or more kinds of above are used, the graded charges that follow should be made by the grade of highest combustibility.			
	1. Additional labor should be charged as follows: a. Cutting only, classes <i>a</i> and <i>b</i> (C. 1); class <i>c</i> (C. 2); class <i>d</i> (C. 3). b. Cutting and making, classes <i>a</i> and <i>b</i> (C. 2); class <i>c</i> (C. 3); class <i>d</i> (C. 3 $\frac{1}{2}$ ). 2. Power, heat, etc., classes <i>a</i> and <i>b</i> (C. 2); class <i>c</i> (C. 3); class <i>d</i> (C. 3 $\frac{1}{2}$ ). 3. If Laundering (steam)..... (This charge in addition to charge under No. 2 for laundry dry room.)	20%		
	4. If dyeing .....	20%		
	5. If gasoline cleaning, see charges 4, 5 and 6 under Laundries (steam).			
	6. Painting, varnishing, tarring or oiling in building.....	100%		
	7. Storage of second-hand awnings..... and class all contents as..... If leather sewing (see Leather Sewing Risks).	30%		D3
618 $\frac{1}{2}$	<b>Sheep</b> Feeding Barns.....	50%		D3
	1. If power chopping or grinding, not over two machines .....	30%		
	(If over 2 machines, rate as Feed Mill.)			
	2. Power (C. 3 $\frac{1}{2}$ ). <b>Ship</b> Chandler Stocks:			
	a. Without oiled clothing and not over 20 bales of Oakum.....	60%	20%	D2
	b. With oiled clothing and (or) not over 100 bales of Oakum.....	70%	30%	D2
	c.*With over 100 bales of Oakum.....	80%	40%	D2
	1. Labor, power, heat, etc., with <i>a</i> (C. 3), with <i>b</i> (C. 3 $\frac{1}{2}$ ); with <i>c</i> (C. 4). 2. Picker, hand.....	50%		
	3. Picker, power..... (Charges 3 and 4 may be reduced one-half if in a metal-lined room with steam jet.)	100%		
	4. If painting, varnishing, tarring or oiling of clothing done in building.....	100%		
620	<b>Shirt</b> and Shirt Waist Factories (see Sewing Risks).			
621	<b>Shirts</b> , Collars and Cuffs, Stocks, R.....	50%		D2
622	<b>Shoe</b> Factories (see Leather Sewing Risks).			
623	<b>Shoemakers'</b> Shops (see Cobblers' Shops).			
624	<b>Shooting</b> Galleries .....	50%		D2
625	<b>Show</b> Cases, Stocks of..... <i>b</i>	50%		D3

		<b>1</b>	<b>2</b>	<b>3</b>
626	<b>Sign</b> Manufacturing (glass).....	60%	20%	D3
	1. Additional labor (C. 2).			
	2. Power, heat, etc. (C. 2).			
	3. Painting .....	30%		
627	<b>Sign</b> Manufacturing (metal).....	60%	20%	D2
	1. Additional labor (C. 2).			
	2. Power, heat, etc. (C. 2).			
	3. Painting, enameling or lacquering.....	30%		
628	<b>Sign</b> Manufacturing (large) Wood, Metal and Glass, no power woodworking machines, except saws, nailers and boring machines, and not over 1 pony planer.....	80%	40%	D2½
	1. Additional labor, power, heat, etc. (C. 3½).			
	2. Painting .....	50%		
	3. If woodworking in excess of above, see Woodworking.			
629	<b>Sign</b> Shops (not over 2 hands).....	60%		D2
	If over 2 hands, see Paint Shops.			
630	<b>Silk</b> Goods .....	50%		D3
631	<b>Silverware</b> , solid .....	50%		D2
632	<b>Skating</b> or Roller Polo Rinks.....	90%	60%	D2
	(When halls or mercantile buildings are so occupied, above charge may be reduced one-half. Halls rented for occasional skating should be rated as Halls.)			
633	<b>Soap</b> Stocks .....	50%		D1½
634	‡ <b>Soap</b> Factories, Toilet, cold processes only.....	70%	30%	D2
	1. Additional labor (C. 3).			
	2. Power, heat, etc. (C. 3).			
635	* <b>Soap</b> Factories .....	100%	80%	D2
	1. Additional labor (C. 4).			
	2. Power, heat, etc. (C. 4).			
	3. If candle making .....	100%		
636	<b>Soda</b> Water Factories.....	50%		D2
	1. Additional labor (C. 2).			
	2. Power (C. 2).			
637	<b>Sporting</b> Goods, Fire Arms, etc.....	50%		D3
638	<b>Stables</b> , private or industrial, including brewery, mill, delivery and mercantile:			
	a. In buildings with mercantile occupancy, not over 3 stalls.....	10%		
	1. Give contents same rate as other contents of same ownership.			
	If stable is separate occupancy, class as..			D2
	2. If over 3 stalls, class as b.			
	b. In separate buildings, not over 10 stalls..	50%		D2
	c. In separate buildings, not over 30 stalls..	60%	20%	D3
	1. Star if over 100 bales hay on premises.			
	2. If over 30 stalls, class as Stables, Bus, Express, press, etc.			
	3. If automobiles kept, not over 2 machines, with warranty that no charging or repairing of machines is done in building.	30%		
	4. If automobile repairing and (or) charging, see charges under Automobile Stocks.			
	If over 2 machines, see Automobile Stocks.			
639	* <b>Stables</b> , Bus, Express, Feed, Hotel, Dairy, Breeding, Stock, Transfer and Veterinary (not over 50 stalls) .....	70%	30%	D3
	1. For each additional 50 stalls or greater part thereof .....	20%		
	2. If automobiles stored, see charge 2 under Stables, Livery, Boarding and Sale.			

		1	2	3
640	* <b>Stables</b> , Livery, Boarding and Sale (not over 50 stalls). . . . .	100%	80%	D3
	1. For each additional 50 stalls or greater part thereof . . . . .	20%		
	2. Automobile Storage:			
	a. Not over 2 machines, with warranty that no repairing or charging of machines is done in building. . . . .	30%		
	1. Repairing and (or) charging, see Charges under Automobile Stocks.			
	b. If over 2 machines, see Automobile Garages. If chopping or grinding in stables, see scale with Feed Stores.			
	Live and rolling stock on ground floor, with 638 to 640 inclusive, take building rate, and if building is exposed, treat as removable.			
	If not on ground floor, live and rolling stock to take rate of other contents.			
	If part on ground floor, take average between building rate and rate of live and rolling stock in other stories.			
643	<b>Stamp</b> Manufacturing (see Rubber Stamp Manufacturing or Stencil Manufacturing.)			
645	<b>Starch</b> in original packages. . . . .	50%		D2
646	<b>Statuary</b> and High Art Stocks (no packing or unpacking). . . . .	50%		D4
	1. Labor, packing or unpacking (C. 3).			
	2. If no bins for packing materials. . . . .	20%		
	3. If hay or straw stored in building in excess of 1 day's supply, grade combustibility by scale for hay in feed stores.			
647	<b>Steam</b> Fitters (see Plumbers).			
648	<b>Steel</b> Stocks.			
	a. High grade tool. . . . .	30%		D2 $\frac{1}{2}$
	b. Low grade or heavy. . . . .	30%		D1
	c. Mixed high and low grade. . . . .	30%		D2
	1. Tempering with oils (not over 5 hands)..	10%		
	2. Power, heat, etc. (C. 2).			
649	<b>Stencil</b> , Stamp, Brand, Seal and Badge Manufacturing . . . . .	60%	20%	D2
	1. Additional labor, power, heat, etc. (C. 2).			
	2. Painting, enamelling, lacquering or dipping . . . . .	30%		
	3. Buffing or polishing with approved metal blower system, outside exhaust. . . . .	10%		
	(No charge for one small wheel for occasional use.)			
	4. Buffing or polishing without approved metal blower system with outside exhaust. . . . .	50%		
	Increase one-fifth for each machine over 3 up to double the charge.			
	(No charge for one small wheel for occasional use.)			
	5. Dip Tank with cover. . . . .	20%		
	6. Dip Tank without cover. . . . .	40%		
	If woodworking, see Woodworking.			
	(Increase charges 5 and 6 one-fifth for each additional tank up to double the charge.)			
	NOTE: If dipping in materials thinned with benzine, naphtha, or other like volatile combustibles or their compounds, double charges 5 and 6.			
650	<b>Stone Cutting and Sawing</b> . . . . .	50%		D1
	1. Additional labor, power, heat, etc. (C. 1).			
651	<b>Stoves</b> and Stove Castings. . . . .	30%		D1 $\frac{1}{2}$

		1	2	3
652	<b>Stove</b> Stocks.....	30%		D1½
	1. If blacking with materials thinned with benzine or other like volatile combustibles .....	10%		
653	<b>Stove</b> and Tinware Stocks (shop work, not over 5 hands), S. R.....	50%		D2
	1. Additional labor, heat, etc. (C. 1).			
654	<b>Strawboard</b> .....	50%		D2
655	<b>Straw</b> Goods Stocks.....	60%	20%	D4
656	<b>Studios</b> , Teachers', music, elocution, etc. (see Offices.)			
657	<b>Suspender</b> Factories .....	50%		D3
	1. Additional labor, power, heat, etc. (C. 2).			
658	<b>Syrup</b> and <b>Sugar</b> Stocks.....	50%		D1½
659	† <b>Syrup</b> Refining .....	60%	20%	D2
	1. Additional labor, heat, etc. (C. 3).			
	2. If recoopering or box making, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
	3. Occasional varnishing or painting.....	20%		
	4. Varnishing or painting, regular.....	50%		
	5. Tin Can making.....	10%		
	(Cumulative with charges under No. 1.)			
	6. If printing or lithographing on tin.....	10%		
669	<b>Tailor</b> Shops, with cutting, making, pressing and (or) cleaning (not over 10 hands), R.....	50%		D2
	(If in upper story of mercantile building, charge may be reduced one-half.)			
	1. Furnaces (C. 2).			
	If over 10 hands, see Sewing Risks.			
	2. Gasoline used for cleaning, not over 1 gallon gasoline in approved safety cans, no charge.			
	3. If can not approved, or if over 1 gallon gasoline kept in building, see Appendix.			
670	<b>Tallow</b> , Grease and Wax Mixing (see Grease Risks.)			
671	<b>Tarpaulin</b> Manufacturing (see Sewing Risks).			
672	<b>Tea</b> , Coffee and Spice Stocks (see Coffee, etc.)			
673	<b>Telegraph</b> Offices (small, 1 or 2 operators)....	20%		D2
	(If in upper stories of mercantile building, no charge.)			
674	<b>Telegraph</b> Supply Stocks.....	50%		D2
675	<b>Telephone</b> Offices .....	20%		D3
	(If in upper stories of mercantile buildings, no charge.)			

676	Tent Making (see Sewing Risks).			
677	*Theatres or Opera Houses, with lifting and sliding scenery and (or) regular theatrical stage.	100%	80%	D4
	1. Lighted by gas on stage or in dressing rooms	15%		
	2. Gas footlights	15%		
	3. Lighted by other than electric or gas on stage or in dressing rooms	30%		
	4. Other than electric or gas footlights	50%		
	5. Heated by hot air furnace or stoves	20%		
	6. Dressing rooms	25%		
	For regular theatres or opera houses in cities of 10,000 or over, use special Theatre Schedule.			
678	Tile, encaustic, mosaic and marble, Stocks of..	50%		D2
679	Tile Pipe (drainage and chimney)	30%		D1
680	Tin in ingots or pigs (see Brass, Copper, Tin and Lead in ingots or pigs).			
682	Tinware Stocks and Shops (not over 5 hands), S. R.....	50%		D3
	1. Furnaces (C. 2).			
	If over 5 hands, see Machine Shops.			
683	‡Tobacco Factories (fine cut).....	90%	60%	D3 ½
	1. Additional labor (C. 4).			
	2. Power, heat, etc. (C. 4).			
684	‡Tobacco (Snuff) Manufactories.....	80%	40%	D4
	1. Additional labor (C. 3 ½).			
	2. Power, heat, etc. (C. 3 ½).			
685	‡Tobacco .....	50%		D3 ½
686	Toys, Notions and School Stationery (small retail), S. R.....	50%		D3
687	Toys and Notions (large and retail bazaars)...	60%	20%	D3 ½
688	Trunk and Valise Stocks.....	50%		D2 ½
	1. If setting up or repairing on small scale, no woodwork, painting, varnishing or oiling .....	10%		
	2. Trimming .....	20%		
	If over 5 hands, see Trunk Factories.			
689	Trunk and Valise Factories, strictly leather (see Leather Sewing Risks).			
670	Trunk Factories with woodwork, see Woodworking.			
671	Twine and Cordage Stocks.....	60%	20%	D2
	(See also Rope Stocks, heavy.)			
672	‡Type Foundries .....	70%	30%	D2
	1. Additional labor (C. 2).			
	2. Power, furnaces, etc. (C. 2).			
673	Typewriter Stocks and Supplies.....	50%		D3

		<b>1</b>	<b>2</b>	<b>3</b>
682	<b>Umbrella</b> Manufacturing .....	60%	20%	D2 $\frac{1}{2}$
	1. Additional labor, power, heat, etc. (C. 3).			
683	<b>Umbrella</b> Stocks, S. R. ....	50%		D2 $\frac{1}{2}$
	1. Labor, repairs (C. 2).			
684	<b>Undertaking</b> Establishments .....	50%		D2 $\frac{1}{2}$
	1. Labor on box work, if any (hand).....	10%		
685	<b>Upholsterers'</b> Stocks (no moss, tow or excelsior) .....	50%		D3
	If moss, tow, excelsior, etc., charge by scale for Feed Stores, with hay.			
686	<b>Upholstering</b> or Furniture Repair Shops (small) .....	70%	30%	D3
	1. Additional labor, power, heat, etc. (C. 3 $\frac{1}{2}$ ).			
	2. Varnishing or painting, regular.....	50%		
	3. Varnishing or painting, occasional.....	20%		
	4. If small amount of mattress making.....	30%		
	(No charge if only hair or cotton felt is used.)			
	5. If picker (hand) .....	50%		
687†*	<b>Upholstering</b> Establishments, using moss, tow, excelsior or other like inflammables.....	120%	100%	D3
	1. Additional labor (C. 4).			
	2. Picker (hand) .....	50%		
	3. Picker (power) .....	100%		
	4. Power (C. 4).			
	(Charge for Picker may be reduced one-half if in a metal-lined room with approved steam jet.)			
696	<b>Vacant</b> Buildings (incomplete or undergoing repairs)—see Builders' Risks.			
	If temporarily vacant, should, as a rule, keep the rate of last occupancy. In no event should charge be less than 50% of basis rate for each vacated occupancy on ground floor, nor less than one-half the total charge for last occupancy.			
697	<b>Valves</b> , Iron and Brass, Stocks.....	50%		D1
698†*	<b>Varnish</b> Factories, Boiling and Chimney House..	300%	200%	D2
	1. Additional labor (C. 5).			
	a. *Thinning and Mixing House with benzine or naphtha.....	200%	150%	D2
	2. Additional labor, power, etc., (C. 4 $\frac{1}{2}$ ).			
	b. *Thinning and Mixing House with Turpentine .....	150%	100%	D2
	3. Additional labor, power, etc., (C. 4).			
	4. If open lights, including open arc lights, and (or) fire heat in either of above..	100%		

	5.	Incandescent electric lights not in vapor-proof globes with keyless sockets, and swinging lights not also protected by wire guards .....	50%	
		(Not cumulative with charge 4.)		
	c.	*Storage House for Varnish.....	70%	30% D2
	d.	Storage House for Gum.....	50%	D2
699	<b>Varnish Stocks</b> (no processes) (not over 15 barrels not including dry colors and stock in original packages not exceeding 10 gallons capacity) .....	70%	30% D2	
	1.	Varnish drawing .....	30%	
	2.	If over 15 barrels or if mixing, see next item.		
700	<b>*Varnish Stocks</b> .....	70%	30% D2	
	1.	Labor—mixing (C. 3 $\frac{1}{2}$ ). .		
	2.	Power (C. 3 $\frac{1}{2}$ ). .		
	3.	Open lights, including open arc lights and (or) fire heat in stock rooms.....	100%	
	4.	Incandescent electric lights not in vapor-proof globes with keyless sockets, and swinging lights not also protected by wire guards .....	50%	
		(Not cumulative with charge 3.)		
	5.	If mixing on premises by hand.....	30%	
	6.	If mixing on premises by power.....	60%	
	7.	Varnish drawing .....	30%	
		(Not cumulative with 5 or 6.)		
701	<b>*Varnish Warehouse</b> (bulk), stored exclusively in approved steel or iron tanks.....	60%	20% D2	
	See charges 3 and 4 under 700.			
702	<b>Vegetables</b> (see Markets).			
703	<b>Veneer Stocks</b> .....	60%	20% D2 $\frac{1}{2}$	
704	<b>Vinegar and Cider Stocks</b> (see Cider and Vinegar).			
705	<b>‡Vinegar Factories</b> , cider vinegar only.....	70%	30% D2 $\frac{1}{2}$	
	1.	Additional labor (C. 3). .		
	2.	Power, heat, etc. (C. 3). .		
	3.	If recoopering or box making, no power woodworking machines, except saws, nailers, and (or) boring machines.....	30%	
	4.	Varnishing or painting, occasional.....	20%	
	5.	Varnishing or painting, regular.....	50%	
706	<b>‡Vinegar Factories</b> .....	120%	100% D2 $\frac{1}{2}$	
	1.	Additional labor (C. 3 $\frac{1}{2}$ ). .		
	2.	Power, heat, etc. (C. 3 $\frac{1}{2}$ ). .		
	3.	If recoopering or box making, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%	
	4.	Varnishing or painting, occasional.....	20%	
	5.	Varnishing or painting, regular.....	50%	

716	<b>Wagon</b> Repositories (see Carriage and Wagon Repositories.)			
717	<b>Wall Paper</b> Factories.....	80%	40%	D3½
	1. Additional labor, power, heat, etc. (C. 4).			
	2. If block repairing or making, no power woodworking machines, except saws, nailers and (or) boring machines.....	30%		
	3. Dry Rooms, charge according to arrangement (C. 4). See Appendix.			
718	<b>Wall Paper</b> Stocks (see Paper, Wall).			
719	<b>Warehouses</b> (see General Storage Warehouses).			
720	<b>Warehouses</b> (private).			
	Reduce the total of percentage charges in Columns 1 and 2 for occupancy of like character ten points, and if no fire in building, apply credit <i>g</i> , page 57.			
721	<b>Watch</b> and Clock Stocks (see Jewelry).			
722	<b>Waterworks</b> Pumping Stations (no cobs, wood, shavings or sawdust fuel).....	30%		D1
	1. Additional labor, power, heat, etc. (C. 1).			
	If with electrical machinery, class all contents as .....			D2
723	<b>Wheelwrights</b> (see Blacksmith and Wagon Shops).			
724	<b>Whiskey</b> (see Liquors, wholesale).			
725	<b>Willow</b> Ware Making (see Basket Making).			
726	<b>Willow</b> Ware Stocks.....	60%	20%	D3
727	<b>Window</b> Glass (see Glass).			
728	<b>Window</b> Shade Stocks (cloth).....	50%		D2½
	1. Labor—cutting, fitting, decorating, etc. (C. 2).			
	2. Power (C. 2).			
729	† <b>Window</b> Shade (Cloth) Manufacturing.....	80%	40%	D2½
	1. Additional labor (C. 4).			
	2. Power, heat, etc. (C. 4).			
	3. Refinishing, no benzine. (Cumulative with 4.) .....	50%		
	4. Refinishing or cleaning with benzine.....	50%		
730	<b>Wines</b> and Liquors (see Liquors).			
731	<b>Wire</b> Stocks and Wire Goods.....	50%		D2
732	<b>Wire</b> Workers.			
	a. Cold metal work only.....	50%		D2
	b. Metal work other than cold.....	60%	20%	D2
	1. Additional labor, power, heat, etc., with <i>a</i> (C. 1); with <i>b</i> (C. 2).			
	2. If painting .....	30%		
	(If woodworking, see Woodworking.)			
733	<b>Wood</b> Carpet and Flooring Stocks.....	50%		D2½
734	<b>Wood</b> Mantels (see Mantels, wood).			
735	<b>Woodenware</b> Stocks, without brooms.....	60%	20%	D2½
736	<b>Woodenware</b> (without brooms) large storage warehouses .....	70%	30%	D2¼
737	* <b>Woodenware</b> Stocks, with brooms.....	70%	30%	D2½
	<i>b</i>			

738 **#Woodworking**, not connected with other industrial processes, nor otherwise provided for in Alphabetical List.

NOTE: Where an occupancy listed elsewhere in Alphabetical List is classed under this item, the damageability of such occupancy should apply.

a. Woodworking, hand and (or) power.  
No power machines except saws, nailers,  
boring machines and not over one  
planer—either pony or block-planer and  
trimmer. (C. 3½) ..... 70% 30% D2

(This item does not include carpenter,  
cabinet, cooper, upholstering or pattern  
shops.)

b. Carpenter, cabinet, cooper or pattern  
shops (star if with power machines ex-  
cept saws, nailers, boring machines,  
one pony planer and one block-planer  
and trimmer) (C. 4)..... 100% 80% D2

c.\*Same as b, with more than two power  
woodworking machines—except saws,  
boring machines and (or) nailers, pro-  
vided with approved metal blower sys-  
tem (C. 4) ..... 100% 80% D2

d.\*Same as c, without approved metal  
blower system (C. 4½) ..... 120% 100% D2

1. Additional labor, power, heat, etc., ac-  
cording to combustibility as above.

NOTE: In cooperage works, open fireplace  
and each patent metal barrel heater should  
be charged for as an independent furnace.

2. Occasional painting and (or) varnishing. 20%

3. Painting, varnishing and (or) dipping  
(regular) ..... 50%

4. Dip Tank with cover (cumulative with  
charge 3) ..... 20%

5. Dip Tank without cover (cumulative with  
charge 3) ..... 40%

NOTE: If dipping in materials thinned  
with benzine, naphtha or other like vola-  
tile combustibles or their compounds,  
double charges 4 and 5.

Increase charge one-fifth for each tank  
over one up to double the total charge.

6. If open heat devices or lights in room with  
power woodworking and (or) painting  
or dipping ..... 50%

7. Shavings vault, in main building.  
(The following apply only to occupancy  
items c and d.)

a. Vault, brick, arched or with parapetted fire  
walls through roof, cut off by approved  
fire door with automatic cut-off in metal  
duct ..... 10%

b. Vault, brick, not arched or parapetted  
through roof, with approved fire door  
and automatic cut-off in metal duct.... 30%

c. Vault, brick, not arched or parapetted  
through roof and without approved fire  
door or automatic cut-off in duct..... 50%

d. Vault, frame, in main building, or no vault,  
and wood refuse used for fuel, without  
approved automatic feed and cut-off....100%

e. If no approved steam jet with control  
valve outside of vault, increase any of  
above charges one-third.

739 **Woodworking**, connected with other industrial processes, unless otherwise provided for in Occupancy List.

1. When woodworking, either on *job repairs* in connection with mercantile stocks or *auxiliary work* in connection with industrial risks is found, if not over 5 hands engaged in the work and no power machines except saws, nailers and (or) boring machines, occupancy should be rated on its own combustibility as stated in Alphabetical List and regular charge of 30% applied, and in addition the hands so employed should be included with other workmen in figuring the total labor charge.

NOTE: When only 1 circular saw is used for occasional work without carpenter bench or other hand or power woodworking, above charge may be reduced to 10%. When box-nailing only is done, charge may be waived, but hands engaged in such work should be included in the charge for labor.

2. When woodworking in excess of No. 1 is found with occupancies of combustibility lower than the preceding classification (738 *a* to *d*), the woodworking charges under 738 in columns 1 and 2 apply the same as for separate occupancy in addition to the main occupancy charges. The damageability of main occupancy should apply to all.
3. When woodworking in excess of No. 1 is found with occupancies of combustibility equal to or higher than the preceding classification (738 *a* to *d*), occupancy should be rated on its own combustibility as stated in Alphabetical List, and regular charge of 30% applied for woodworking. The hands so employed should be included with other workmen in figuring the total labor charge.
4. If forging is found in same room with woodworking. After Charge should be applied at discretion for unsafe conditions.

5. *Painting and (or) Dipping.*

Rooms or divisions with standard cut-off, occupied solely for painting and (or) dipping wooden goods, or for drying same by natural air, should grade as follows:

- a. No naphtha or other like volatile combustibles or their compounds used (C. 3½) ..... 80% 40% D2
- b.\*Naphtha or other like volatile combustibles or their compounds used (C. 4) .. 90% 60% D2
1. Additional labor, heat, etc., in section *a* (C. 3½), *b* (C. 4).
2. Dip Tank, with cover..... 20%
3. Dip Tank, without cover..... 40%

NOTE: If dipping in materials thinned with Benzine, Naphtha or other like volatile combustibles or their compounds, double charges 2 and 3. Increase one-fifth for each tank over one up to double the total charge.

4. If open heat devices or lights in room... 50%

		1	2	3
740	<b>Wool</b> Storage (no tallow or grease) (assorting, not over 5 hands) .....	50%		D1 $\frac{1}{2}$
	1. Additional labor (assorting) (C. 2).			
	2. If with grease, see Appendix.			
741	<b>Woolen</b> Goods.....	50%		D1 $\frac{1}{2}$
742	<b>Wrapper</b> Factories (see Sewing Risks).			
752	‡ <b>Yeast</b> Factories .....	70%	30%	D3
	1. Additional labor (C. 3 $\frac{1}{2}$ ).			
	2. Power, heat, etc., (C. 3 $\frac{1}{2}$ ).			
753	<b>Yeast</b> Stocks .....	50%		D3
	1. Labor—packing (C. 2).			

## TABLE OF CREDITS.

### Structural Features.

The following credits are percentages of *Occupied Building Rate* and should be deducted before giving credit for protective features.

- a. If building has skeleton iron-clad roof and walls (cumulative with roof credit, item 4, page 9).....deduct 5%
- b. When ground floor of building without basement is non-combustible .....deduct 5%

### Protective Features.

The following credits are percentages of Occupied Building Rate after credits for structural features, if any, have been deducted, and should be deducted before adding differential for contents:

- a. *Inside Standpipe* and hose attached (approved arrangement and water supply).....Deduct..... 5%
- b. *Automatic Fire Alarm System* (approved) connected with paid fire department with permanent men and horses constantly on duty at fire department houses.....Deduct.....10%  
When found with watchman reduce credits *e* or *d* one-half.
- c. *Casks and Pails of Water or Chemical Extinguishers.* One approved cask and three pails in good order, or five approved special fire buckets (or in lieu one approved chemical extinguisher) for each 2,000 square feet of floor area.....Deduct..... 5%  
(In mercantile risks above credit should preferably be extended for chemical extinguishers only).
- d. *Watchman* inside building with approved watch clock .....Deduct..... 5%  
This credit is not cumulative with *e*, and in cities where central station service can be obtained, credit should be reduced one-half.
- e. *Watchman* with approved system reporting to central station.....Deduct.....10%
- f. If building is heated exclusively by hot water or steam produced in separate building, or if no heat in building .....Deduct..... 5%  
(This credit not to apply when building contains stationary heat device of any kind).
- g. If all exposed interior woodwork is covered with approved whitewash or fire proof paint.....Deduct..... 2%

## FRAME CONTENTS TABLE.

The following table shows the proper differential to be added to the several occupancies of a frame, iron-clad or brick-veneered building according to the damageability of each occupancy as shown in column 3 of the preceding Alphabetical List of Occupancies. The differential should be added regardless of the story in which the occupancy is located, and should not be decreased for starred risks.

NOTE: In the Exposure Formulas it will be noted that deductions are made for stocks according to their removability. When the exposed rate of each occupancy in the several buildings in a row has been determined, the following differentials should be added in order to establish the published rate of each occupancy. Raters should not attempt to add the differential in the following table until the exposed rate of each occupancy has been determined. This will prevent confusion in figuring exposures according to the directions in Exposure Formulas.

	D. 1 & 1½	D. 2 & 2½	D. 3 & 3½	D. 4
In towns of classes 5 or 6			10c	14c
In towns of classes 4 or 4½			13c	17c
In cities of class 3		8c	16c	20c
In cities of class 1 and 2		14c	20c	25c

## AFTER CHARGES.

The following punitive charges for defects that are remediable at small expense, should be applied to building and contents after the Final Rate has been established, in order that correction of defect may not make a revision of rates necessary. Unlike other charges and credits, they are not percentages of Basis Rate, but fixed amounts for each \$100 at risk.

- a. *Heating or Power* (unsafe), including arrangement or condition of flues, stovepipes, furnaces, stoves, boilers, engines, motors, etc., dangerous proximity to wood-work, heating by stoves outside of office in warehouse risks where inflammables are stored, etc., in addition to charge, if any, for safe arrangement..... 20c to \$1.50
- b. *Lighting* (unsafe), including arrangement or condition of lights, open lights in show windows or in warehouses outside of office where inflammables are stored, etc., in addition to charge, if any, for safe arrangement..... 20c to \$1.50
- c. *General Untidiness or Carelessness*, including any objectionable feature of management or condition of premises, not charged for in preceding tables..... 20c to \$1.50  
NOTE: The following charges should be made for the hazards most commonly found under this head.
  - 1. For absence of metal lockers with self-closing doors, in industrial risks where workmen's clothes are liable to be soiled with grease or paint..... 5c to 10c
  - 2. No approved metal waste cans in industrial risks where oily waste, rags or other refuse are found..... 5c to 10c
  - 3. No approved drip-cups under shaft-bearings, unless floor is non-combustible..... 5c to 10c
  - 4. No approved drip-pans under printing presses, or drills, lathes or boring machines in metal workers, unless floor is non-combustible..... 5c to 10c
  - 5. No signs prohibiting smoking in industrial risks employing over 5 hands, or in any risk in which combustibility of occupancy grades higher than (C. 3.), unless otherwise provided for in Alphabetical Occupancy List..... 5c to 10c
  - 6. *Flexible Rubber Tubes* with stationary furnaces, or where possible to have gas pipe connection, with movable furnace..... 5c to 25c
- d. *Storage of dangerous substances* not otherwise provided for in Alphabetical List, or Appendix..... 5c to \$1.00
- e. *Moving Picture Machines* with assemblage or recreational occupancies, such as churches, schools, halls, theatres, etc.
  - 1. Machine not enclosed in Standard Booth as per specifications..... 50c
  - 2. Machine enclosed in wood, metal lined booth, with all openings and ventilation as per standard specifications..... 25c
  - 3. Machine enclosed in Standard Booth as per specifications .....10c
- f. *Fixed Ammunition (Small Arms)*
  - Not over 2,000 lbs. located on grade floor..... No charge
  - If over 2,000 lbs. on grade floor and (or) any quantity not on grade floor..... 10c
  - If in cases, weight to be estimated at an average of 75 lbs. each.
  - If kept in a standard enclosure, as per specifications, no charge.

## EXAMPLES

*Note: In the following examples the basis rates are selected from Basis Rate Table No. 100 for sixth class protection:*

### EXAMPLE NO. 1.

(Single Occupancy.)

One story frame iron-clad building with metal roof, without basement, 20 x 50 feet, occupied as a second-hand clothing store.

Basis Rate—one-story .....	Charges.	Credits.	\$1.00
Area, no charge.			
Brick flue not built from ground.....	8%		
Metal roof .....		10%	
Second-hand clothing.....	60% + 20% = 80%		
	88% — 10% = 78%		.78

Rate of Building.....			\$1.78
Rate on contents (D3) .10 + 1.78.....			\$1.88

### EXAMPLE NO. 2.

(Multiple occupancy building with one ground floor stock.)

Two story and basement frame building with shingle roof, 25 x 80 feet, occupied as follows:

Basement: Carpenter shop, two hands.

Ground floor: Grocery.

2d story: Photograph gallery and offices.

Basis rate—two-story.....			\$1.05
Area 2000 ft., 3 floors.....	5%		
Flue (one) charge 3 a .....	8%		
Carpenter shop.....	100% + 80%		
Grocery .....	50%		
Photograph gallery (half charge) .....	25%		
	188% + 80% = 268%		2.81
Rate of building and (D2) contents (Carpenter shop, Grocery and offices)			\$3.86
Rate on Photograph gallery (D4) .14 + 3.86.....			4.00

### EXAMPLE NO. 3.

(Multiple occupancy building with one ground floor stock.)

Two story and basement frame building with shingle roof, 20 x 40 feet, occupied as follows:

Basement: Barber shop.

Ground floor: Grocery.

2d story: Hall (society).

Basis rate—two-story.....			\$1.05
Area, no charge.			
Barber shop.....	20%		
Grocery .....	50%		
Hall (society), no charge.			
	70%		.74
Rate of building and contents (all D2).....			\$1.79

EXAMPLE NO. 4.

(*Multiple occupancy building with more than one ground floor stock.*)

Two-story frame building with shingle roof, 40 x 80 feet, occupied as follows:

Ground floor: Drug store and Grocery.

2nd story: Printing and offices, gaso. eng. standard.

Basis rate—two-story .....	\$1.05
Area, 40 x 80=3200, 2 floors .....	6%
Flues, tile (2) 20%+4% .....	24%
Drug stock .....	60% +20%
Grocery.....	50%
Printing (half charge) .....	35%
Gaso. engine (C3) .....	25%
	$170\% + 20\% = 190\%$
	$\overline{220\%} = \underline{\underline{2.31}}$

Rate of building and contents (all D2 or D2½) .....

\$3.36

No charge is made for offices in second story.

EXAMPLE NO. 5.

(*Frame hotel with four ground floor stocks.*)

Building, two-story frame with shingle roof, total area 4,500 feet, second story occupied as hotel; Ground floor occupied as follows: Drugs, Men's Furnishing Goods, Clothing, Dry Goods.

Basis rate—two-story .....	\$1.05
Area, 4500 feet (2 floors) .....	9%
One stovepipe through partition.....	8%
Hotel occupancy.....	60% +20%
Cooking, 1 range.....	25%
Ground floor stocks:	
1. Clothing .....	50%
2. Drugs.....	60%
3. Men's Furnishing Goods.....	50%
4. Dry Goods .....	50%
	$210\% \times 80\% = 168\%$
	$\overline{270\% + 20\% = 290\%} = \underline{\underline{3.05}}$

Rate of building and contents (all D2 or D2½) .....

\$4.10

Note: The charge for drugs in column 2 being the same as for hotel occupancy, it is immaterial which enters into the rate.

The total charges for ground floor occupancies under hotel are reduced to 80% of the total of regular charges (see page 6, Frame Tariff.)



## **APPENDIX.**



## CLASSIFICATION OF OCCUPANCY.

The following classification of occupancy was used in the construction of the Alphabetical List of Occupancies in Brick Tariff and is published in order to make clearer the rationale of the tariff itself, also because it will be found useful to raters in estimating the hazard not only of risks which do not appear in the Alphabetical List but of those found in the list which present special features for which the list does not adequately provide. With the building schedule and the following classification it will be found possible to establish an intelligent estimate of almost any brick risk likely to be encountered in actual rating.

The factors of hazard found in occupancies of Mercantile Buildings are divisible into—

1st: *Causes*, i. e., the things which originate combustion.

2nd: *Media*, i. e., the substances on which the causes act with reference to their latent energy or combustibility.

3rd: *Effects*, i. e., the relative susceptibility of media to damage as the direct or indirect results of fire—commonly known as damageability.

NOTE: The Alphabetical List of Occupancies in Brick Tariff contains three columns which may be respectively designated as the columns of Cause, Medium and Effect.

Causes are cumulative and media climacteric. A cause, say a hand furnace, may start a fire but it does not contribute to the combustion that follows. While it is more hazardous in proportion to the combustibility of the materials by which it is surrounded and should bear a charge to correspond with this combustibility, it is to be reckoned with, otherwise, as a cause regardless of the number of occupancies in a building, and for this reason, in either single or multiple occupancy buildings, all charges in column 1 enter into the rate.

On the other hand, combustibility, as a form of latent energy, is governed by the physical law that all transfers of energy of any given kind are from bodies having more to those having less. Under this law, the highest charge only in column 2 should enter into the rate, regardless of the number of occupancies in the containing building.

The classification of No. 1 follows Nos. 2 and 3 in the following pages, for the reason that the measurement of a cause is determined by the latent energy (combustibility) of the medium by which it is environed.

## ANALYSIS AND CLASSIFICATION OF MEDIA

The following classification of combustibility and damageability (pages 5 to 11, inclusive), has been applied in constructing the Alphabetical Lists of Occupancies in the brick and frame tariffs (parts A and B), hence it need not be referred to for occupancies named in these Lists. The classification, however, will occasionally be found useful to raters in estimating the combustibility and damageability of occupancies not included in the Lists referred to.

NOTE: Of the numerous factors which make up the sum total of the fire hazard found in occupancy, the quality of combustibility seems least amenable to the accurate definition which is always a pre-requisite to exact classification. The combustibility of an occupancy is sometimes determined by the packages, or containers, more than by the merchandise itself. At other times the materials used for packing, or the debris resulting from unpacking, constitute the real hazard of an occupancy. These features, it is true, present no serious difficulties, for it is as easy to determine their combustibility as that of the merchandise itself, but the important feature of *quantity* is to be reckoned with and quantity is a *continuum*—a thing without dividing lines; that is, susceptible of infinite division. Again, quantity in itself is often affected by mass or density of arrangement. Stocks of merchandise are necessarily spread out for display while merchandise in storage is disposed with a view to economy of space, and is generally found in large aggregations, "piled to the ceiling." Compression and a lack of proper aeration are the two most important influences conducive to spontaneous combustion and in warehouses closely packed an incipient fire is likely to be inaccessible, while its progress is facilitated by concealed spaces. These things are more inherent with certain substances than with others, particularly with fibrous materials not protected by boxes, barrels or other rigid packages, of a lower grade of combustibility, that prevent compression of their contents.

As to combustibility, unaffected by the influences mentioned, it seems impossible to differentiate it into more than five definitive grades that are inherent in the substances themselves. These gradations, stated in the briefest terms, are as follows:

- a. Non-combustible.
- b. Moderate-burning.
- c. Free-burning.
- d. Intense-burning.
- e. Flash-burning, ranging from semi to full explosiveness.

The important influence of quantity is shown by the fact that substances of grades "d" and "e" are freely admitted with stocks of grades "a," "b" and "c" in small quantities and safe containers, while the free-burning class "c," when found in large aggregations, takes rank with or even surpasses in fire hazard substances of grade "d" in the moderate quantities and safe containers which custom has established for these substances.

As before stated, quantity and arrangement are not susceptible of classification, for quantity may range, for example, from a few bales of hay in a feed store to the contents of an immense hay warehouse. In the large majority of cases, however, commercial usage or necessity has established broad lines of demarcation with nearly all substances likely to be materially affected by quantity, for these substances are usually to be found either in a retail stock spread out for sale, or awaiting use, shipment, or distribution in a large warehouse where quantity with its accompaniments (compression, imperfect ventilation, concealed spaces, inaccessibility, etc.) produces its maximum effect.

The five grades above stated are used in the following classification, with two intermediate grades which, even if not susceptible of close definition, are necessary to provide for the gradations of hazard caused by quantity and other unclassifiable features of combustibility.

## **COMBUSTIBILITY.**

### *Low. (C. 1.)*

Merchandise which does not in itself constitute a fuel for the spread of combustion.

*Examples:* Hardware, Leather, Hides (green or dry), Rubber Goods, Wool, Woolen Goods, Canned Goods, etc.

### *Middling. (C. 2.)*

Merchandise which burns moderately in itself but may contain small quantities of a higher grade of combustibility, either through policy permits or common usage.

*Examples:* Retail Groceries (with matches, coal oil, etc.), Dry Goods or Country Store Stocks (with celluloid goods, cotton batting, millinery, straw goods, etc.)

### *High. (C. 3.)*

Merchandise which burns freely, constituting an active fuel.

*Examples:* Straw Goods, Millinery, Hay, Hemp, etc.

### *Intermediate. A. (C. 3½.)*

This grade is not susceptible of definition by quality but is used principally for quantity, being available for large open stocks of C. 3, or for moderate quantities of C. 4, also for some grades of class C. 7 (unclassifiable), which see.

### *Quasi-Incendiary. (C. 4.)*

Merchandise that burns with great intensity and is difficult to extinguish, but is not liable to spontaneous combustion or to ignition, except through actual contact with fire.

*Examples:* Matches, Celluloid Goods, Saltpeter, etc., also combustible substances finely divided, such as shavings in hand woodworkers, carpenter or cooper shops, etc., but not so finely divided as to constitute explosive dusts.

**NOTE:** The merchandise that legitimately belongs to this class is so dangerous that it is seldom or never found except in negligible quantities or in protective packages of a lower grade of combustibility, hence class C. 4 is seldom used for mercantile stocks. It is frequently available as a quantitative grade for storage of substances which *per se* belong to grade C. 3.

### *Intermediate. B. (C. 4½.)*

Like C. 3½, this grade is not susceptible of close, qualitative definition, but it is available for minor industrial risks or where Grade C. 5 is reduced by an approved blower system, also for animal substances, such as wool, felt, etc., which give off combustible dusts of a lesser hazard than the dusts from fibrous vegetable substances such as wood, cotton, etc.

The class is also used quantitatively for large storage risks of grade C. 3 or C. 4.

### *Incendiary. (C. 5.)*

Including substances that burn with an intensity equal to or greater than C. 4, and in addition give off inflammable or explosive vapors at ordinary weather-temperatures, or that spontaneously ignite through exposure to air or moisture, also substances which as a result of industrial processes produce large quantities of dusts, lint, and other finely divided vegetable debris that is subject to flash fires or explosions, if not safely disposed of through an approved blower system.

*Examples:* Crude petroleum and all its lighter products, ethers, carbide, turpentine, and the debris of planing mills, cotton gins, flouring mills, etc.

*Indefinite.* (C. 6.)

Merchandise, the hazard of which through uncertainty as to its nature, can be determined only through limitations embodied in policy forms.

*Examples:* Department Stores, Wholesale Drugs, Wholesale Groceries, General Storage Warehouses, Chemical Works, Proprietary Medicine Factories; also Auction Ware-rooms, Warehouses of receiving commission firms and other risks where contents are liable to frequent change.

**NOTE:** Risks of this class necessarily take one of the regular grades (C. 1 to C. 5, inclusive), the grade being subject to modification when policy form eliminates dangerous substances and processes.

*Unclassifiable.* (C. 7.)

Substances that cannot be identified with any of the preceding classes, or that, if so classifiable by their physical characteristics, have a known fire record that makes them discredited either on account of their tendency to spontaneous combustion or because of an undiscovered hazard either physical or moral.

*Examples:* Oiled Clothing, Cotton Waste, Shoddy, Second-hand Goods, Household Furniture Ware-rooms, Junk and Rag Stocks, Bone Dust, Charcoal, Lime, Acids, Dye Stuffs, etc.

This class also covers a number of special hazards and is designated in Alphabetical List of Brick Tariff by a dagger.

**NOTE:** Risks of this class are necessarily graded by judgment, but should take one of the regular grades—C. 1 to C. 5, inclusive.

EXCEPTIONS.

a. Classification is, in many cases, determined by packages, wrappings or display shelving, or in some cases by the materials used in large quantities for packing, or, on the other hand, by the debris resulting from unpacking, rather than by the merchandise itself.

*For example:* Retail Stocks of Confectionery, Boots and Shoes, Queensware, Fruit or Produce Stocks, which in themselves are non-combustible, may appropriately be classed as C. 2 or even C. 3, while Furniture Stocks, which would ordinarily class as C. 2 when found in large ware-rooms crated or wrapped in paper, excelsior, etc., should grade as C. 3 or even as C. 3½, according to circumstances.

b. As before stated, classification is also determined by quantity or density of arrangement, either or both. When found in large quantities in crowded premises "piled to the ceiling," etc., merchandise should take a higher grade of combustibility, according to the circumstances.

This condition belongs largely to merchandise of the grades of combustibility, C. 3 or over, and is most often found in warehouses or industrial risks, as hay, broom-corn, wooden-ware and broom warehouses etc. In feed stores, or upholstering supply stocks, for example, hay, straw, moss, hemp, excelsior, etc., may raise the combustibility from C. 2 to C. 3, C. 3½ or 4, according to quantity, while hay in large hay warehouses should class as C. 4½.

On the other hand, when the quantity of any given grade is so small as to be inconsequential, it may be treated as negligible and the charge for combustibility waived. This applies to contents of offices, banks, schools, armories, bowling alleys, etc., also to small quantities

of inflammables such as matches, oils, chemicals, etc., ordinarily allowed without charge in groceries, country store stocks, retail drug stores, etc.

NOTE: The features mentioned in sections *a* and *b* also contribute to the classification of fluids according to their combustibility and tendency to give off inflammable vapors. These may be divided as follows:

	Combustibility.	Inflammable Volatility.
a. Wine, Beer, Molasses, Vinegar, Ammonia, etc. ....	None.	None.
b. Heavy Lubricating, Vegetable, Animal and Fish Oils .....	Low.	None.
c. Alcohol, Whiskies, Standard Coal Oil .....	Medium.	Medium.
d. Gasoline, Benzine, Naphtha, Crude Petroleum, Turpentine, Ethers, Varnishes, etc. ....	High.	High.

These substances are usually stored in barrels, demijohns, carboys, bottles, etc., which tend to reduce hazard in proportion to the absence of volatility, though, especially with grades *c* and *d*, quantity is as important as with non-fluid substances.

The substances described under "*a*" are neither volatile nor combustible, so that wooden packages tend to increase hazard.

Heavy lubricating, vegetable, fish and animal oils usually constitute grease risks and class as C. 3½, when free from industrial processes.

Alcohol, whiskies, etc.: The vapors of these are explosive only under high temperatures, and in ordinary retail or wholesale stocks may be safely graded as C. 2, but in large warehouses should grade C. 3 to C. 3½, while standard coal oil should grade as C. 4 when found in more than negligible quantities. (Whiskies in bonded warehouses are competitive, and at present, rate can be established only by judgment.)

Crude Petroleum and all its lighter products, ethers, etc., are permitted only in small quantities or by established rules. When found in large quantities, they should be classed as C. 5, and on account of rapidity of combustion, reduced credit should be allowed for Fire Department protection.

Acids in carboys are, as a rule, non-combustible but highly explosive, and the escaping fluids set up violent combustion when they come in contact with many solid substances, such as fats, oils, resins, fibrous materials, etc. Their vapors are also dangerous to life, being so poisonous as to prevent access to the premises where they are at large. All these belong to Class C. 7, and their presence should be met by a punitive after charge.

c. When an industrial process on a small scale is carried on in the open in connection with a regular mercantile stock, the materials "raw, wrought and in process," including usual debris, when not in negligible quantities, should determine the classification of stock, and in any event, combustible materials in process should take one grade higher combustibility than a regular stock of merchandise of similar nature.

d. Mixed stocks consisting of two or more distinct classes of merchandise in quantities sufficient to determine the character and extent of combustion, should be classed by the merchandise of highest combustibility.

*Charges for Combustibility.*

The following percentages of Basis Rate should be added for the different grades of combustibility shown by the preceding classification:

- C. 1.        5%
- C. 2.        10%
- C. 3.        20%
- C. 3½.      40%
- C. 4.        80%
- C. 4½.      160%
- C. 5.        320%
- C. 6.        According to personal survey or policy conditions.
- C. 7.        Class as one of the above grades by judgment.

## ANALYSIS AND CLASSIFICATION OF EFFECTS.

### (DAMAGEABILITY.)

The effects of fires may be divided into Direct and Resultant.

*Direct Effects* are those caused by the actual combustion of the substances themselves or by change in their molecular structure caused by the heat of adjacent combustion.

*Resultant Effects* are those that are incidental to fires, caused either by the efforts to suppress combustion or to remove merchandise from burning premises or by effects of adjacent combustion other than heat. The most usual resultant effects of fire are from smoke, water, dampness, change of temperature (either hot or cold), breakage, sooture, theft, etc.

**NOTE:** Merchandise that is highly susceptible to damage may have its damageability materially reduced by protective packages, and these should be taken into account in classifying.

Damageability is classed under five grades, as follows:

#### *Low.* (D. 1.)

Merchandise that is largely immune to Resultant Effects, being materially affected only by the Direct Effects of fire, as

Heavy hardware, leather or rubber stocks, hides, wool and woolen goods, canned goods, barreled meats or fish (cured), etc.

#### *Middling.* (D. 2.)

Merchandise that is but moderately affected by Direct and Resultant Effects, as

Retail groceries, dry goods, boots and shoes, hats and caps, etc.

#### *High.* (D. 3.)

Merchandise that is easily damageable by Direct or Resultant Effects, as

Musical merchandise, books and stationery, paper, butter, egg and cheese stocks, fruits, etc.

#### *Extra.* (D. 4.)

Merchandise that is liable to heavy damage from slight causes, either Direct or Resultant ("Total Loss Risks"), as

Millinery, artificial flowers, florists' stocks, contents of green or hot houses, stocks of birds and rare animals, high grade art stocks and paintings, etc.

#### *Indefinite.* (D. 5.)

Consisting of mixed or changeable stocks of differing degrees of damageability of which the average damageability should be established by personal estimate, as

Department stores, general storage warehouses, receiving commission houses, etc.

**NOTE:** Certain classes differ from the regular grades (i. e., D 1 to D 4, inclusive) by amounts too small to warrant placing them in the next higher or lower grades. The grades of D $1\frac{1}{2}$ , D $2\frac{1}{2}$  and D $3\frac{1}{2}$  have therefore been established half way between the regular grades as defined above.

*Explanatory of Charges for Damageability.*

The basis rates appearing in both brick and frame tariffs are established by assuming an estimate of hazard for a standard building without fire department protection. Municipal protection is divided into seven grades. The relative hazard of brick and frame buildings, under the extremes of metropolitan protection and no protection, as shown by tariffs in different states, averages closely to the following ratios:

Hazard of a frame building under metropolitan protection to its hazard without protection about..... 66½ %  
Hazard of a brick building under metropolitan protection to its hazard without protection about..... 55 %

With municipal protection as at present divided, the average decrease of hazard for each superior grade of protection, between the above extremes, is 8 per cent. for frames, and the successive ratios of the basis rates for frames would be found by discounting 100 by 8 per cent., this amount by 8 per cent., and so on for each grade until we reach the highest grade of protection. The same result is reached by successive discounts of 13 per cent. for bricks. But the established classification made it necessary to change the gradation slightly between grades 4, 4½, 5 and 6.

This process was adopted for establishing the basis rates under each grade of protection, all calculations being made upon 100, and changed from this by percentages. In the frame tariff the rate of contents is partly determined by removability, as explained in Exposure Formulas.

In the Brick Tariff, the rate of contents is established with reference to damageability, through a differential added to the occupied building rate. This differential represents the relative value of fire department protection to contents as compared with its value to the building itself.

When a brick building is unprotected, the hazard of contents is admittedly greater than that of the building because of a reasonable certainty of salvage in the walls. This difference in hazard depends upon the classified damageability of the stock.

In computing the basic differentials upon which the Contents Tables in Brick Tariff were constructed, the scale of difference between the hazard of an unprotected building and its contents (assumed as an average of the differentials found in existing tariffs) is as follows, the scale being based upon \$10 per \$1,000 at risk:

Building .....	\$10.00
Contents classed as D 1 .....	11.00
Contents classed as D 2 .....	12.00
Contents classed as D 3 .....	14.00
Contents classed as D 4 .....	16.00

Taking the above as a basis of computation, the value of fire department protection to each of the above is assumed to be as follows:

Building, each grade of protection reduces hazard	13%
Contents, D 1 .....	5%
Contents, D 2 .....	2%
Contents, D 3 .....	1%
Contents, D 4 .....	0%

These discounts applied to the hazard of building and contents, shown by the preceding figures produce the following table showing comparative hazard of building and contents under each grade of protection:

TABLE OF RELATIVE HAZARD.

Discounts.	1st	2d	3d	4th	4½	5th	6th
D 1 .... 5%	\$ 8.62	\$ 9.05	\$ 9.50	\$ 9.98	\$10.36	\$10.74	\$11.00
D 2 .... 2%	10.86	11.08	11.30	11.53	11.70	11.88	12.00
D 3 .... 1%	13.32	13.45	13.58	13.72	13.82	13.93	14.00
D 4 .... 0%	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Build'g 13%	5.42	6.13	6.93	7.83	8.63	9.43	10.00

Subtracting the building hazard from the contents hazard of each grade of damageability under each grade of protection, we have the following table of differentials between building and contents:

TABLE OF DIFFERENTIALS.

	1st	2d	3d	4th	4½	5th	6th
D 1 .....	\$ 3.20	\$2.92	\$2.57	\$2.15	\$1.73	\$1.31	\$1.00
D 2 .....	5.44	4.95	4.37	3.70	3.07	2.45	2.00
D 3 .....	7.90	7.32	6.65	5.89	5.19	4.50	4.00
D 4 .....	10.58	9.87	9.07	8.17	7.37	6.57	6.00

The above table shows the amount to be added to occupied building rate for *ground floor* contents for each \$1,000 at risk, but it is necessary to increase the differential for contents not located on ground floor, and for this purpose a regular scale of increase is applied, the addition for basement and second story being increased one-half and the additions applied regularly to stories above the second.

The Contents Tables in Brick Tariff were computed by the method described upon the basis of 100, and Tables 70, 75, etc., were constructed from the 100 Table by percentage changes, so that the ratios of the differentials in each Table with reference to each other are the same.

NOTE: The differentials for half grades were computed by taking the average of the next higher and lower grades, thus: D $1\frac{1}{2}$  is the average of D 1 and D 2, etc.

#### MATERIALS.

Materials, raw, wrought and in process, including the debris occasioned by industrial activities, are frequently more combustible at certain stages than at others, and when a variety of materials is used they should be classified by the most damageable stage and the most combustible material, unless the latter is so small in quantity or kept under such conditions, imposed by policy, that it may be considered negligible as a factor of hazard.

The combustibility and damageability of materials may be classified as directed for regular mercantile stocks.

## ANALYSIS AND CLASSIFICATION OF CAUSES.

The miscellaneous activities found in mercantile buildings, either connected with stocks of merchandise or independent, are divisible into Inert and Active.

### INERT.

An inert occupancy neither increases nor decreases hazard—the protection afforded by human presence being considered an offset to the increase in physical hazard caused by the occupancy.

Inert occupancies are as follows:

Banks.

Barber Shops (small, without baths, in upper floors of mercantile buildings for accommodation of inmates.)

Dwellings, flats and apartments.

Massage Parlors (without baths).

Offices, of professional and business men, architects, railways, insurance agents, etc.

Studios, of artists, teachers, etc.

Sleeping rooms (single).

Sample Rooms (small) of mercantile agents, no sales from stock, etc.

### ACTIVE.

Active occupancies are divisible into:

- 1st. Traffic hazard, i. e., the hazard caused by employees and customers in the regular transaction of business connected with mercantile stocks, retail or wholesale.
- 2nd. Habitations, consisting of boarding houses, hotels, lodging houses, clubs, etc.
- 3rd. Rooms or halls used for assemblies or resorts—where people gather together for some common purpose aside from commercial or industrial activities
- 4th. Industrial or handicraft occupancies, consisting of all industrial activities found in mercantile buildings, either connected with stocks of merchandise or independent.
- 5th. Unclassed, embracing all activities which cannot be identified with any of the foregoing.

### *Scale of Charges for Causes.*

#### Traffic Hazard.

Class.	Charge for Traffic.
C. 1.	3%
C. 2.	5%
C. 3.	10%
C. 3½.	20%
C. 4.	40%
C. 4½.	60%
C. 5.	80%
C. 6.	According to survey or conditions of policy.
C. 7.	Class as one of the above grades by judgment.

NOTE: The hazard of traffic as a cause is related to the combustibility of the medium upon which it acts, hence the above scale of charges is made proportionate to the classification of the stock with which it is connected.

### Habitational Occupancies.

1. Boarding houses in mercantile buildings, not over 10 rooms..	10%
2. Boarding Houses, not over 20 rooms.....	20%
3. Boarding Houses, over 20 rooms, rate as Family Hotel.	
4. Hotels:	
a. Family .....	30%
b. Transient .....	50%
Add for cooking, baking, steam laundry, etc., as per charges under Hotels.	
5. Club Houses (City) .....	10%
Add for cooking, baking, steam laundry, etc., as per charges under Club Houses (City).	
6. Lodging Houses (see Boarding Houses).	
7. Boarding and Lodging Houses (low grade bunk houses in mercantile building) .....	100%

NOTE: The charges in the preceding list should appear in the column of causes (No. 1), and the classification of contents as to combustibility and damageability should appear in columns 2 and 3 of Alphabetical List of Occupancies, Brick Tariff.

### Assemblage or Recreational Occupancies.

Club Rooms, Lodge Rooms or Society Halls (no cooking), Dance Halls (private) and Churches.....	3%
Billiard Saloons, Bowling Alleys, Gymnasiums, City Council and Court Rooms.....	5%
Armories or Drill Halls, Academies and Schools.....	10%
Halls (public). For definition and schedule of Halls and Theaters, see Brick Tariff.	

NOTE: The above charges should appear in the column of Causes (No. 1) and the classification of contents as to combustibility and damageability should appear in Columns 2 and 3 of Alphabetical List, Brick Tariff. In most cases the contents of these occupancies as to combustibility are negligible, excepting halls (public) and theaters.

### INDUSTRIAL OCCUPANCIES.

The factors of hazard in these occupancies are grouped as follows:

- 1st. Materials, raw, wrought or in process, as media for the spread of combustion, classified in same manner as merchandise, (see page 11, Materials).
- 2nd. Labor (embracing the hazard of manipulation of materials in the making, handling, packing, shipping, etc.)
- 3rd. Heat producing or utilizing devices.
- 4th. Unclassed, consisting of recognized factors of physical hazard which cannot be identified with any of the foregoing

### LABOR.

NOTE: In the alphabetical occupancy lists in brick and frame tariffs when the words, "Labor" or "Additional Labor" appear with a given occupancy their meaning is to be taken as follows:

*Labor* signifies that the minimum charge from the following labor table plus the charge for additional hands should be made according to the combustibility of occupancy.

*Additional Labor* signifies that the minimum labor charge appears in column 1 of the alphabetical list and only the charge for additional hands should be made.

a. In establishments where the number of hands is largely increased during certain seasons the average of the excess hands may be estimated accordingly. If, say, 100 additional hands employed during three months of the year the estimate may be made for an average of 25 excess hands. Estimates of labor should be under rather than over the actual average to prevent frequent claims for rate reductions.

b. When the average number of hands is between two numbers in the table charge should be made by the nearest number.

c. When more than one occupancy in a building, the total charge for labor should not exceed the maximum labor charge for occupancy of highest combustibility, plus the sum of the minimum labor charges for the other occupancies.

d. When workmen are engaged in manipulating the stock itself or materials not more hazardous, labor should be charged in conformity with the classification (as to combustibility) of the stock.

e. When manufacturing or industrial processes are carried on in connection with mercantile stocks, and the materials on which work is done are, or through manipulation become, more hazardous than the general combustibility of the occupancy, but are in quantities too small to establish the combustibility of entire occupancy, labor should be charged for on the combustibility of the most hazardous process, with a minimum combustibility equal to that of the main occupancy.

This rule to apply only to occupancies not specifically provided for in Alphabetical List.

f. When more than one industrial process is carried on under one occupancy, minimum charge for labor should be based upon work of highest combustibility, and all hands (except 5 engaged in work of highest combustibility) should be charged as additional labor according to the combustibility of the work upon which they are engaged. Total charge should not exceed charge which would be made if all hands were engaged in the work of highest combustibility.

#### LABOR TABLE.

	C 1.	C 2.	C 3.	C 3½.	C 4.	C 4½.	C 5.
<i>Minimum Charge.</i> 5 hands or under... . .	5%	10%	15%	25%	40%	60%	80%
<i>Additional Labor.</i>							
5 additional hands... . .	4%	5%	6%	7%	9%	11%	13%
10 " " . . .	8%	10%	12%	14%	18%	22%	26%
20 " " . . .	12%	15%	18%	21%	27%	33%	39%
30 " " . . .	16%	20%	24%	28%	36%	44%	52%
40 " " . . .	20%	25%	30%	35%	45%	55%	65%
60 " " . . .	24%	30%	36%	42%	54%	66%	78%
80 " " . . .	28%	35%	42%	49%	63%	77%	91%
100 " " . . .	32%	40%	48%	56%	72%	88%	104%
125 " " . . .	36%	45%	54%	63%	81%	99%	117%
150 " " . . .	40%	50%	60%	70%	90%	110%	130%
175 " " . . .	44%	55%	66%	77%	99%	121%	143%
200 " " . . .	48%	60%	72%	84%	108%	132%	156%
250 " " . . .	52%	65%	78%	91%	117%	143%	169%
300 " " . . .	56%	70%	84%	98%	126%	154%	182%
and over.							

#### HEAT PRODUCING OR UTILIZING DEVICES.

These are grouped under the following heads:

1. Motive Power.
2. Hand or Movable Furnaces.
3. Fixed Furnaces.
4. Dry Rooms.
5. Unclassed.

**NOTE:** When open furnaces or lights of any kind are found in a room where inflammable vapors, gases, dust, lint or flyings exist; in the absence of specific charge in Alphabetical Occupancy List, the highest punitive after-charge should be made for unsafe arrangement in addition to the charge found in any of the following tables for furnaces, dry rooms, motive power, forges, cauls or any other heat device.

#### MOTIVE POWER.

##### Table of Charges for Power Devices.

The charges in following table apply to devices in main building, not enclosed or separated from the contents by which they are surrounded. In practice heat devices are not permitted in the open with merchandise of a higher grade of combustibility than say C. 4, and when so found the punitive charge indicated by above note in italics should be applied in addition to the charge indicated by following table. All steam power devices should be located on and surrounded by an approved non-combustible floor to a safe distance. In the absence of this each charge should be doubled for unsafe arrangement:

Class	Electric Motor		Gas, Hot Air, Kerosene or Natural Gas Engine	Standard Gasoline Engine	Steam Power					
	Pattern				Portable B & E		Stat'n'ry B & E			
	Encased or Induction	Not Encased			Brick Stack	Metal Stack	Brick Stack	Metal Stack		
C 1	0%	0%	5%	10%	15%	30%	40%	60%		
C 2	0%	10%	10%	15%	25%	40%	50%	70%		
C 3	0%	15%	15%	25%	35%	50%	60%	80%		
C 3½	0%	20%	20%	40%	45%	60%	70%	90%		
C 4	0%	30%	30%	50%	55%	70%	80%	100%		
C 4½	0%	40%	40%	60%	65%	80%	90%	110%		
C 5	0%	50%	50%	70%	75%	90%	100%	120%		
C 6	0%	According to survey or by policy conditions.								
C 7	0%	Class as one of above by judgment.								

**NOTE a.** Charges for motive power devices (except motors) should be determined by the highest combustibility of contents on floor where located, subject to credit for location, if any (see Location Table). If in separate room used for no other purpose and not communicating except with hallway, and if no cobs, wood, shavings or sawdust used for fuel, charge may be made for C 1 combustibility.

**NOTE b.** Steam boilers furnishing power for lighting and (or) elevating should be charged under above Table. Boilers used *only* in heating building should be charged as fixed furnaces if pressure is over 15 pounds; otherwise no charge.

**NOTE c.** Increase above charges in the steam power columns ten points for each floor pierced by each metal stack, or for each additional metal stack through roof, unless fire proof.

If stack of stationary boiler is lined with fire-brick or other approved material, deduct 10 points from charges in above metal stack column and reduce charge for each additional stack or floor one half. If stack from stationary boiler is in enclosure of 8-inch brick or 6-inch hollow fire-tile with 4-inch air space between stack and enclosure throughout, treat as a brick stack.

**NOTE d.** Motors of one horse power or less may be treated as negligible, in premises that are free from inflammable vapors, dust or flyings.

Open motors enclosed in approved case or cabinet; or in separate rooms with self-closing doors, used for no other purpose, may be treated as encased.

When motors or dynamos are in boiler and engine room charge may be waived, otherwise charge for dynamos as motors.

NOTE e. The charges for gasoline engine in preceding Table provide for standard arrangement. When the arrangement is not standard, charge should be increased by the percentages found in the following Table:

1. If with flame igniter..... 5%
2. Tank outside less than five feet distant..... 5%
3. If inside tank with pump feed, charge for storage. See page 24.
4. If inside or outside tank, with compressed air or gravity feed, apply charge f 3, page 25.  
(Cumulative with charge 3 above.)

If gasoline in base of engine, treat as if in an unapproved receptacle. See page 24.

(See memorandum of standard arrangements, next page.)

1. *Additional Devices.*

- a. For each occupancy in building with more than one power device, increase charge in preceding Motive Power Table one-fifth for each device over one to double the charge.

NOTE: When stationary boilers with brick setting are arranged in batteries, all boilers in one battery may be classed as one boiler. When more than one metal stack in a battery, see Note c, above.

- b. When more than one kind of power device found in same occupancy, charge for the most hazardous, plus one-fifth the charge for each of the others according to its nature, up to double the charge for the most hazardous.

2. *Location.* Except with electric motors (see Note d, preceding page) the following ratios of the charges in preceding power tables should be applied when device is not in the open in Main Building. (When in a separate room in Main Building, or in an addition, it must be used for no other purpose, and if device is steam power the floor must be non-combustible to a safe distance or net charge doubled.)

**LOCATION TABLE.**  
**Location of Device in Room.**

	Brick Buildings Steam Power	Other Power	Frame Buildings Steam Power	Other Power
a. With combustible partitions or ceiling (charge to be not less than for (C. 1) in the open).....	80%	50%	90%	60%
b. Walls and ceiling fire-proof without ap- proved cut-off, or walls and ceiling non-combustible (2-inch wire lath and plaster or 4-inch tile) with approved cut-off .....	40%	25%	50%	30%
c. Walls and ceiling fire-proof with approved cut-off .....	0%	0%	0%	0%
d. Frame, iron-clad or brick-veneered with- out approved cut-off.....	70%	40%	80% (If communicating or detached less than 10 feet.)	50%

**In Power House.**

e. Brick or skeleton iron-clad without ap- proved cut-off.....	50%	30%	60% (If communicating or detached less than 5 feet.)	40%
f. Fire-proof or space under brick or stone sidewalk without approved cut-off....	30%	0%	40%	0%

Note 1: Power house should not be considered cut-off unless openings above roof are also protected.

Note 2: When power house is cut off or detached, rate as separate risk and charge exposure (see Exposure Formulas) reduced one-third. Communication charges should also be made, if applicable (see Communicating Occupancies). The exposure charge and (or) communication charge should in no case exceed 80% of the charge which would be made for power house communicating (not cut off).

*Memoranda of Standard Arrangements for Gasoline Engine.*

*Supply Tank*, to be outside underground and not less than 5 feet from building.

*Piping*, from outside tank to engine to be so arranged that gasoline will drain back to supply tank.

*Feed*, from supply tank to be by pump only.

*Ignition of Engine* to be by electric spark.

*Location*. Engine to be located where it will be free from inflammable flyings.

The term gasoline to include all the lighter products of petroleum by whatever name known.

*Memoranda of Standard Arrangements for Steam Boilers.*

**Location.**

- a. In buildings cut off by 12-inch brick or stone wall, with communicating openings, if any, protected by standard fire doors, openings over combustible roof of boiler room, if any, protected by standard fire shutters or standard wired glass windows, or
- b. In fire-proof room having brick walls with brick, tile or concrete ceiling, all openings protected by standard fire doors.

**Floor.**

- a. Earth or concrete, or brick, tile or cement on iron I beams.
- b. If wood floor to be protected as follows, protection to extend four feet in front and two feet at sides of boiler.
  1. Sheet metal covered by two courses of four-inch hollow tile crossed with boiler iron on top.
  2. Three courses of brick laid in cement, middle course laid crosswise on edge, with ventilating spaces within or between bricks, spaces open at ends for ventilation.

**Stack.**

- a. Brick.
- b. If metal to be completely surrounded by enclosure of 8-inch brick or 6-inch hollow fire-tile with 4-inch air space between stack and enclosure throughout.

NOTE: Metal stack through floors and (or) roof not so enclosed should be charged for as specified in Table of Motive Power devices and Notes thereunder. In such case clearance should not be less than specified below and in addition ventilated metal jackets to be provided at floors and (or) roof equidistant from woodwork and stack, extending not less than six inches below lower edge of floor and (or) roof joists. Metal hood around stack over opening through roof to have at least 2-inch space above roof for air circulation.

**Clearance.**

For unprotected woodwork or combustible material should be as follows:

*Steam Pressure*  
Over 15 lbs. Not over 15 lbs.

		36 inches	12 inches.
1. Boiler with brick setting (except steam dome).	a. Above .....	36 inches	12 inches.
	b. At sides .....	18 inches	12 inches.
2. Boiler without brick setting	a. Above .....	48 inches	18 inches.
	b. At sides .....	36 inches	18 inches.
3. Metal Breeching or Smoke Pipe (except where passing through roof).....	36 inches	18 inches.	
4. Metal stack not enclosed, but provided with ventilated metal jacket.....	12 inches	6 inches.	

NOTE: When clearance to unprotected woodwork or combustible material does not conform to above standard, see After Charges.

### HAND OR MOVABLE FURNACES.

The hazard of movable furnaces is proportionate to the combustibility of the stock or materials with which they are used. (See following Table of Charges.)

### FIXED FURNACES.

Are grouped as follows:

- A. Furnaces connected with ovens, as bake-ovens, china firing ovens, annealing ovens, japanning ovens, coffee roasting ovens, etc.
- B. Furnaces connected with open kettles or vats for heating substances liable to combustion, as in candy making, meat rendering, cruller making in bakeries, etc.
- C. Furnaces for motive power or for producing heat to be used in dry rooms in industrial plants.
- D. Furnaces for heating buildings, including cooking stoves or ranges.
- E. Unclassed.

NOTE: As the heating of buildings is a universal necessity, with the exception of buildings used for the storage of substances not affected by low temperatures, it has been the practice in all tariffs to establish a basis rate for each class upon the assumption that the building contains safely arranged heating devices. Such charges as have usually been made for heating have been for the use of unsafe fuel (as gasoline, acetylene, etc.) and for defects in arrangement. It is questionable whether analysis should not be applied to these important factors of hazard, but the example of other tariffs is followed, and under head "D" as defined no charge is made for furnaces or steam boilers (not over 15 pounds pressure) used exclusively for heating if safely arranged.

### TABLE OF CHARGES FOR FURNACES.

In the following Table, Hand or Movable Furnaces embrace fire, glue and soldering pots, crucibles, cupels, ironing furnaces and other movable heat devices using coal or charcoal for fuel.

Class.	Hand or Mov- able.	Fixed or Stationary.				Each Additional Kettle with same Furnace.
		Steam Kettles with Combustible Contents.	Furnaces, Inde- pendent or with Kettles with Non-combustible Contents.	Connected with Ovens.	Kettles with Combustible Contents.	
C 1	5%	0%	5%	10%	15%	3%
C 2	7%	5%	10%	20%	25%	5%
C 3	10%	7%	15%	25%	35%	7%
C 3½	12%	12%	25%	35%	55%	11%
C 4	16%	20%	40%	50%	85%	17%
C 4½	20%	25%	50%	60%	105%	21%
C 5	25%	30%	60%	70%	125%	25%
C 6		According to survey or policy conditions.				Up to double the Kettle charge.
C 7		Class as one of above grades by judgment.				

NOTE: Charges for independent furnaces and for kettles with non-combustible contents should be determined by the highest combustibility of contents on floor where located, subject to credit for location, if any (see Location Table, steam power). If in separate room used for no other purpose and not communicating except with hallway, charge may be made for C 1 combustibility.

*Rules for Both Fixed and Movable Furnaces.*

1. *Fuel, other than coal or charcoal.*
  - a. When *gas or electricity* is used, charge may be reduced one-half, or if movable furnace charge may be waived with stocks grading as (C. 1) and (C. 2). Where natural gas is not provided with automatic pressure-regulating valve or other approved system regulating maximum and minimum pressure, the regular charge from preceding table should be made.
  - b. When *crude petroleum or any of its lighter products* (except standard coal oil) is used, double all charges in preceding table. (If gravity or compressed air feed or supply tank in building, see page 25, Section f 3 and Note thereunder.)
2. *Additional Furnaces.*

Increase charge one-fifth for each furnace over one up to double the charge, for each occupancy with more than one furnace.

**Note:** When fixed furnaces with brick setting are arranged in batteries, all furnaces in one battery may be classed as one furnace. When more than one metal stack in a battery, see item 4, below.

(When various kinds of furnaces using the same, or different kinds of fuel, are found in same occupancy, charge for most hazardous furnace plus one-fifth the charge for each of the others according to its class and kind of fuel, up to double the charge for the most hazardous.)

*Rules for Fixed Furnaces.*

3. *Not on approved non-combustible floors* to a safe distance. Make double charge except when electricity or steam is used for fuel. (If floor is wood, fire proofed, apply same increase if without approved air ventilation).
4. *Metal Stack* passing through ceiling or roof (not fire proof) 15%.  
Increase charge ten points for each floor pierced by each stack, or for each additional stack through roof, unless fire proof.
5. *Kettles.* No charge should be made for steam kettles with non-combustible contents, or for vacuum kettles heated by steam.
6. *Location.* The charges for Fixed or Stationary Furnaces, in the preceding Furnace table, apply to these furnaces when in the open in main building. When not so located, consult Location Table, page 16. In making reductions for location, fixed furnaces should receive the same credit as Steam Power Devices.

### DRY ROOMS.

NOTE 1: The charge for dry room is independent of the charge for outside furnace which supplies it with heat.

NOTE 2: If heated by inside stove or furnace, double the charge under any of the following arrangements, and increase the resulting charge one-fifth for each inside heating device over one up to double the charge.

NOTE 3: When a dry room heated by inside stove or furnace is located in a room where inflammable vapors, gases, dust, lint or flyings exist, see note in *italics* under Heat Producing and Utilizing Devices.

NOTE 4: When a dry room is heated by hot air from outside furnace, or by steam pipes, located at sides and (or) overhead (not at bottom) the charge under any of the following arrangements may be reduced three-tenths.

NOTE 5: If more than one dry room in same occupancy of a building, increase charge one-fifth for each additional up to double the charge. No increase in charge should be made for additional dry rooms in the same battery. When more than one kind of a dry room is found in same occupancy, charge for most hazardous plus one-fifth the charge for each of the others according to its arrangement, up to double the charge for the most hazardous.

### Charges.

#### Arrangement No. 1.

Floor, walls and ceiling non-combustible with approved iron door.

Maximum Temperature.	Combustibility				
	C1	C2	C3	C3 ½	C4 and over.
Under 125°	5%	10%	15%	20%	25%
125 to 200°	10%	15%	20%	25%	30%
200 to 300°	15%	20%	30%	40%	50%

#### Arrangement No. 2.

Floor, walls and ceiling covered with  $\frac{1}{8}$ -inch asbestos covered with metal, or metal on wood studding, with approved metal or metal-clad door.

Maximum Temperature.	Combustibility				
	C1	C2	C3	C3 ½	C4 and over.
Under 125°	10%	15%	20%	25%	30%
125 to 200°	20%	40%	60%	80%	100%
200 to 300°	60%	80%	100%	120%	140%

#### Arrangement No. 3.

Floor, walls and ceiling wood, lath and plaster, or frame metal-clad.

Maximum Temperature.	Combustibility				
	C1	C2	C3	C3 ½	C4 and over.
Under 125°	15%	25%	40%	60%	80%
125 to 200°	40%	70%	100%	150%	200%
200 to 300°	80%	110%	140%	190%	240%

### FORGING HAZARD (Hand).

(As found in blacksmith, wagon, machine and repair shops).

NOTE: There is no appreciable difference between the hazard of a fixed and a movable forge except that the latter is liable to be upset or to be placed in rooms where combustible materials tend to increase the danger of fire. The principal hazard of forging lies in flying sparks, and this danger is as great with the movable as with the fixed forge in proportion to the time actual forging is done. The fixed forge is liable to be in constant use, while the movable forge is, in theory, at least, for occasional use. Custom has established a wide difference in the charge, however, which is possibly justified by the relative time actual forging is done.

When forging is done in a communicating room used for no other purpose, the anvil should be located where sparks cannot fly through open doorways and ignite combustible materials.

On the assumption that movable forges in small repair and machine shops are used but a small part of the time, the following scale of charges for each forge may be applied when arrangement is approved.

**Forges.**

Class.	Fixed.	Movable.
C1	15%	5%
C2	25%	10%
C3	35%	15%
C $3\frac{1}{2}$	55%	25%

1. If combustible floor is not protected with metal, increase above charges for fixed forges 20 points and for movable forges 10 points.
2. Increase total charge one-fifth for each forge over one up to double the charge. When more than one kind of forge is found in same occupancy, charge for the most hazardous, plus one-fifth the charge for each of the others according to its nature up to double the charge of the most hazardous.
3. If forges are in rooms where the combustibility grades higher than (C.  $3\frac{1}{2}$ ), or anvil is located where there is a possibility of sparks flying through open doorway into such room, see Note under Heat Producing and Utilizing Devices.

#### DRY HEAT BOXES OR CAULS.

Ranging from small box-like compartments of two to three feet square to the dimensions of ordinary dry rooms.

On account of the difficulty of investigating the interiors, and the accumulation of dust and debris, these devices are often more hazardous than regular dry rooms.

The only approved arrangement is that in which the caul or hood which constitutes the compartment is metal, or metal and asbestos lined, the bottom being composed of the steam pipes which furnish the heat. This arrangement allows the dust and debris to drop through the steam pipes to the floor, where it may be swept away.

The hazard of these devices, like that of dry rooms, is proportionate to the combustibility of the occupancy with which they are found.

When constructed as above described charge as follows:

Caul or Hood			
All Metal.	Metal and Asbestos Lined.	Wood or Metal Lined.	
C1	2%	5%	10%
C2	3%	10%	20%
C3	5%	15%	30%
C3½	8%	20%	40%
C4	10%	25%	50%
C4½	15%	30%	60%
C5	20%	40%	80%
C6 and 7 at discretion.			

When caul or heat box is heated by inside stove or furnace, charge should be doubled under any of the above arrangements and the resulting charge increased one-fifth for each inside heating device over one up to double the charge. (See also note in italics, page 15.)

Increase charge one-fifth for each additional up to double the charge. No increase in charge should be made for additional cauls or heat boxes in the same battery. When found in addition to regular dry room, make one-fifth charge.

#### STEAM CHESTS.

Embracing all small compartments with moist heat for bending, sweating, sizing, etc. When supplied by exhaust steam, charge may be waived.

When the source of heat is inside the compartment, as gas, coal oil lamp, etc., the charge should be made for unsafe arrangement as an after-charge, and in no case less than one-half of the charge for dry heat boxes of like construction.

#### MISCELLANEOUS OCCUPANCY CHARGES.

The following miscellaneous charges covering Repairs, Auxiliary Work, and storage, sale or use of Oils, Gasoline and Sodium Peroxide, apply when found in an occupancy *unless the hazard is otherwise provided for in Alphabetical List of Brick and Frame Tariffs.*

a. Repairs or Auxiliary Work.

1. *Repairs* in non-industrial occupancies where the charge for labor does not ordinarily apply, if benches or shop work are found for private repairs of the building or its occupancies, the following charges should be made, if not provided for in Alphabetical list:

Metal work.....	10%
Woodwork .....	20%
Painting, occasional.....	10%
Painting, regular.....	30%

If power or furnaces, charge for on scale of combustibility of regular occupancy.

2. *Job Repairing* for customers, in connection with mercantile stocks, or *Auxiliary Work* in connection with industrial risks; if with not over 5 hands engaged in the work and no power woodworking machines, except saws, nailers and (or) boring machines, the following charges should be made and in addition, the hands employed should be included with other workmen in figuring total labor charge:

Woodwork .....	30%
(No charge for box nailing only).	
Metal work.....	10%
Painting, occasional on metal only.....	10%
Painting, regular on metal only.....	30%
Painting, occasional on wood or wood and metal.	20%
Painting, regular on wood or wood and metal..	50%

If power or furnaces, charge for on scale of combustibility of regular occupancy.

Note 1: When more than one occupancy in a building, charges *a1*, and (or) *a2* should be cumulative.

Note 2: No charge to be made under painting for addressing or stenciling packages.

3. If over 5 hands engaged in metal work or painting, charges given under Paint Shops and Machine Shops in Alphabetical List apply the same as for separate occupancy in addition to the main occupancy charges. If over 5 hands engaged in woodworking or with power machines (except saws, nailers, boring machines, and not over one planer (either pony or block-planer-and-trimmer)) see Woodworking connected with other industrial processes in Alphabetical List. Hands engaged in metal work, painting or woodworking, should be included with other workmen in figuring the total labor charge. The damageability of main occupancy should apply to all.

- b. Tallow and (or) Grease for sale or use, unless kept either in vault or room cut off.

1. Not over 10 barrels, no charge.
2. Not over 20 barrels.....
3. Not over 30 barrels.....

NOTE: When over 30 barrels, if combustibility of main occupancy is less than (C. 3½) rate as a Grease Stock (see Alphabetical Occupancy Lists).

If combustibility is (C. 3½) or over, rate by combustibility of main occupancy plus charge 3 above.

- c. Oils (lubricating and non-volatile), for sale or use, unless kept either in vault or cut off room.

1. Not over 5 barrels.....	5%
(No charge for not over 1 barrel in approved receptacle.)	
2. Not over 10 barrels.....	10%
3. Not over 20 barrels.....	20%

When over 20 barrels, if combustibility of main occupancy is less than (C. 3½), rate as an oil risk (see Alphabetical Occupancy Lists). If combustibility is (C. 3½) or over, rate by combustibility of main occupancy, plus charge 3 above.

- d. Oils (not lubricating), including linseed, standard test coal oil, paints, varnishes, turpentine, etc., for sale or use, unless kept either in vault or cut off room.

1. Not over 3 barrels in all.....	10%
2. Not over 5 barrels in all.....	20%
3. Not over 10 barrels in all.....	40%

When over 10 barrels in all, if combustibility of main occupancy is less than (C. 3½), rate as a paint and oil risk, (see Alphabetical Occupancy Lists). If combustibility is (C. 3½) or over, rate by combustibility of main occupancy, plus charge 3 above.

The above charges do not apply to dry paints or paints in cans.

In retail stores 1 barrel of standard test coal oil may be kept without charge.

If the different kinds of oils described under b, c and d are found in same occupancy, highest charge only should be made.

None of the charges under b, c or d applies to oil, paint, varnish, or wholesale drug stocks, or other occupancies where otherwise provided for in Alphabetical list.

If stored in same room with acids, or vegetable fibrous substances, as cotton, hay, hemp, tow, rags, etc., or in woodworking or other risks where vegetable dust or flyings are found, all of the charges under b, c and d should be doubled.

- e. Crude Petroleum, Benzine, Benzole, Gasoline. Naphtha, Ether and other like volatile combustibles or their compounds, except Standard Coal Oil, storage of, either for use or sale, unless otherwise directed in Alphabetical List, should be charged for as follows:

1. If not over 1 gallon, in unapproved receptacles...	Add 10%
2. If over one gallon and not over 10 gallons kept in approved metal safety cans.....	Add 10%
3. If over 10 gallons and not over 1 barrel kept in approved metal receptacles.....	Add 30%
(If receptacles not approved, double charge 2 or 3.)	

Note: Charges 1, 2 or 3 are cumulative with all charges for gasoline devices or systems.

4. Gasoline Stoves used exclusively for domestic purposes with storage of not over 1 gallon in reservoir of stove and not over 1 gallon in approved safety can, no charge. If used for other than domestic purposes, charge for stoves as movable furnaces with gasoline fuel.

- f. Gasoline Lamps, Lighting and Distributing Systems.

1. If approved, and tank capacity of lighting and distributing system is limited to 1 gallon in approved reservoir, no charge.	
2. If not approved.....	Add 10%

(Above charge is cumulative with specific charges, if any, for open lights in Alphabetical Occupancy list, or with punitive charge as described in Note, page 15 Appendix.)

3. If supply tank of distributing system, (exceeding 1 gallon capacity) inside or outside with contents delivered by gravity or compressed air.....Add 50%

Note: When supply tank is inside and over one gallon capacity, above charge to be cumulative with charge for storage, see above, e 2 and 3.

- g. Gasoline Engines and Furnaces (see Power and Heat Devices in Appendix).

- h. Sodium Peroxide.

1. If used for bleaching, limited to one day's supply ..... 10%  
2. If more than one day's supply kept in building.... 50%

- j. Sulphur Bleaching.

1. Charge for approved sulphur pan with hood as for independent furnace on non-combustible floor.  
2. If sulphur pan not on 3-inch legs or without approved hood double the charge. Hood may be waived when combustibility of stock is (C. 1) or (C. 2).

**MERCHANDISE OR PATTERNS IN STANDARD FIREPROOF VAULTS OR SAFES.**

When written specific with 80% Reduced Rate Average or Coinsurance Clause, may be written at 50% of rate for same property in the open unless otherwise provided in Alphabetical Lists.

NOTE: The following specifications of the Chicago Board of Underwriters are published by consent of Manager H. H. Glidden.

**SPECIFICATIONS FOR APPROVED VAULTS.**

Vaults in buildings of non-fire proof construction to be made of self-supporting walls of brick laid in cement, and extending from the ground. Size of vault not to exceed 750 cu. ft. Walls to be not less than 12 in. in thickness. Top and bottom of vault to be water proof and made of brick or concrete arches of the same thickness as walls. (Arches may be sprung between steel beams if desired.) No wood top flooring to be used. Communications to vault to be protected on outer side of wall with approved vault iron doors and to be smoke proof, by closing against a rabbet at top, bottom and one side, hinge side of door to close into a groove. Steel plate to be at least 3-16 in. thick; door and wall frames to be of equivalent construction to the approved 3-16 in. iron fire door. Communications also to be protected by an iron door on the inner side of the wall, this door to be at least No. 14 U. S. gauge in thickness. Fixtures inside vaults to be of non-combustible material. No lights other than stationary electric incandescent lamps properly guarded to be installed inside vaults. Switch to be outside.

**SPECIFICATIONS FOR APPROVED SAFES.**

Approved safes to be made of an angle iron frame continuous at all edges, angle iron not to be smaller than  $\frac{1}{4}$  x 2 in. and for large sizes to be increased proportionately. On safes larger than 40 in. high, 30 in. wide and 30 in. deep, an additional stiffening of heavy steel at least  $\frac{1}{4}$  in. in thickness and of width proportioned to size but never less than 2 in., must be used at top, bottom and sides. Sheet steel plates to be not less than No. 12 U. S. gauge thickness for the outer shell and not less than No. 14 for the inner shell. Filling to be of cement concrete not less than  $5\frac{1}{2}$  in. thick, except that the doors may have 4 in. of concrete and a  $\frac{1}{2}$  in. sealed air space. Door to have stepped sides so as to be smoke proof. This space may be used for the lock and bolts. No cast iron to be used in the construction of the safe, except such parts as casters, hinges and flanged door frames.



## **EXPOSURE FORMULAS.**



## EXPOSURES.

External Exposures are classified under three heads:

a. Radiated Exposure, consisting of the proportion of its own hazard a risk radiates toward exposed risks.

b. Absorbed Exposure, consisting of the proportion of radiated hazard absorbed by an exposed risk.

c. Transmitted Exposure, or the proportion of the hazard a risk absorbs from one side, that is transmitted by it to a risk on the other side.

Under the above classification, it is proper to bear in mind,

1st. That every exposing risk radiates some ratio of its own hazard towards exposed risks.

2nd. That every exposed risk absorbs some ratio of this radiated exposure.

3rd. That every risk transmits some ratio of the hazard it absorbs.

4th. That radiated, absorbed and transmitted exposure are all modified by structure, clear space and fire department protection.

In view of the numerous ratios and *ratios of ratios* found in the problem of measuring exposures, the necessity for some fixed standard of comparison is clear, because a standard is the first essential in all measurement—it is equally clear that as ratios are to be measured the standard must be a ratio and not a quantity. Again, if we view exposure from the standpoint of cause and effect, it is evident that radiated exposure is to be taken as cause; hence it is necessary to select some ratio of the hazard of the exposing risk as a standard.

In selecting any standard for measurement, it is proper to choose that which is most generally available and most free from change. These qualities are found in the greatest degree, perhaps, in the exposure of frame buildings to frame buildings.

While there is, and always has been, a wide diversity in the exposure charges found in tariffs past and present, the charges for exposure of frame to frame show the closest approach to uniformity, the extremes of variation ranging from about 30% to 50% of the rate of the exposing building when contiguous. The average of all tariffs would probably approximate 40%, this average showing more or less decrease under the higher grades of municipal protection.

Like buildings under like protection necessarily radiate like ratios of their own hazard, hence the standard of radiated exposure under any given grade of protection should be the same everywhere.

In the earlier editions of this System it was assumed that a single ratio would give properly related results under all grades of protection, because the lower rates under higher protection would bring about a proper adjustment of exposure charges, but as the system came into use in the larger cities, it was felt that the lower rates in these cities did not sufficiently reduce the charges, hence the graded scale of standards was adopted.

Subsequent experience, however, is giving rise to doubts whether it would not have been more logical to adhere to one common ratio, and it is not beyond the bounds of probability that the best results will yet be found by adopting for universal use alternative standard No. 2, i. e., 30% of the rate of exposing building, regardless of its structure or municipal protection.

**ALTERNATIVE STANDARDS.**

1

2

5th and 6th class towns.....	40 %	{ 30% for all grades of protection.
4½ and 4th class towns.....	33½ %	
1st, 2nd and 3rd class towns.....	30 %	

## EXPLANATORY OF GENERAL EXPOSURE TABLES.

a. The General Exposure Tables on the next pages are intended to be used in measuring regular exposures between buildings of all classes excepting frame to frame in 4, 4½, 5 and 6th class towns, for which see Table, page 7. Irregular exposures are provided for by special rules in the succeeding pages.

b. The figures in heavy face are decimal ratios of the Standard of radiated exposure (see preceding page) and show how many tenths of this standard are absorbed by the exposed risk when within ten feet of exposing risk.

c. The word "All" indicates that when within ten feet the exposed building absorbs all of the standard exposure radiated by the exposing building. When such buildings stand in solid rows, i. e., without spaces of ten feet or more between, they should be rated in the same manner as solid frame rows.

d. The fractional figures in the table show the proportionate reduction to be made for each ten feet of clear space between exposing and exposed buildings.

### (Examples.)

Assuming standard to be 40%, and distance between exposures 20 feet.

Decimal .6 above fraction 1/3 indicates six-tenths of 40% or 24%, one-third of which, i. e., 8% of the rate of exposing building is to be charged to exposed building.

The word "All" indicates full standard and if found above, say, 1/5, indicates that 3/5 of 40%, or 24%, is to be charged to exposed building.

e. The detailed description of exposed buildings applies also to exposing buildings at the head of the several columns.

f. The description refers to the side of building exposing or exposed. A building may be No. 1 on one side and No. 2 on the other, or No. 2 on both sides, while No. 1 with reference to rear exposures.

NOTE: A brick building with a frame, iron-clad or brick-veneered non-supporting wall not over 30 feet long, may be treated as B. No. 1 with reference to exposures radiated or absorbed through this wall.

g. Brick buildings with solid parapet fire walls (C.3 and B.2) are omitted from exposing buildings, because they radiate no exposure. When they are exposed the initials W. D. indicate Wall Damage Exposure, which see.

h. A gravel, slag, tile, slate or composition roof approved by the Underwriters' Laboratories is the equivalent of a metal roof.

j. A protected opening is one provided with standard fire doors or shutters or wired glass.

# GENERAL EXPOSURE TABLE, No. 1.

*For use in towns of grade 4, 4½, 5 or 6.*

(The following table applies to normal exposures—for abnormal consult page 31.)

## *Exposing Buildings.*

Frame	I. C. No. 2 or Skele- ton I.C.	BRICK VENEERED			BRICK SHINGLE ROOF		Brick Metal Roof B. No. 1
		B. V. No. 1	B. V. No. 2	B. V. No. 3	C. No. 1	C. No. 2	
		All	All	.7	.6	.5	.4
<b>Iron Clad</b>	All	All	All	.6	.5	.4	.3
<b>No. 1</b> With exposed openings	1/5	1/4	1/4	1/4	1/3	1/2	1/2
<b>No. 2</b> Without exposed openings	All	All	All	.5	.4	.3	.2
	1/4	1/3	1/3	1/3	1/2	1/2	1/2
<b>Brick Veneered</b>	All	All	All	.6	.5	.5	.3
<b>No. 1</b> With shingle roof or wooden mansard	1/5	1/4	1/4	1/3	1/3	1/3	1/2
<b>No. 2</b> With metal roof and no parapet or with unprotected openings	.7	.6	.6	.5	.4	.3	.2
	1/4	1/4	1/3	1/3	1/3	1/3	1/2
<b>No. 3</b> With metal roof and parapet 12 in. high. No unprotected openings.	.6	.5	.5	.3	.2	.2	.0
	1/3	1/3	1/3	1/2	1/2	1/2	0
<b>Brick Shingle Roof</b>	.6	.5	.5	.4	.4	.4	.3
<b>No. 1</b> Wooden mansard or shingle roof sloping towards exposure	1/4	1/4	1/4	1/3	1/3	1/3	1/2
<b>No. 2</b> Shingle roof and parapet wall with unprotected openings	.5	.5	.4	.3	.3	.3	.2
	1/4	1/3	1/3	1/3	1/3	1/2	1/2
<b>No. 3</b> Shingle roof and parapet wall, all openings protected	W. D.	W. D.	W. D.	.0	.0	.0	.0
<b>Brick Metal Roof</b>	.4	.4	.3	.3	.2	.3	.2
<b>No. 1</b> Wall without parapet or with unprotected openings	1/4	1/3	1/3	1/2	1/2	1/2	1/2
<b>No. 2</b> Parapet wall, all openings protected	W. D.	W. D.	W. D.	.0	.0	.0	.0

**NOTE 1:** A brick veneered building which uses the wall of an adjoining brick or brick veneered building, should be treated as a B. V. No. 1 Building with reference to this wall.

**NOTE 2:** The absorbed exposure of all B. 1 buildings, with solid wall or protected openings, when separated by space, should be reduced one-half up to vanishing point of normal exposure. Net charge to be cumulative with wall damage, if any.

**NOTE 3:** B. 2 buildings with fire shutters when over 2 stories, radiate same exposure as B. 1.

EXPOSURE TABLE.

(*Frame to Frame.*)

Showing proportionate additions, with relation to standard, when clear spaces intervene between frame buildings exposed by frames. (See explanation of General Exposure Table.)

FOR USE IN TOWNS OF CLASSES 4, 4½, 5 AND 6.

CLEAR SPACES.		EXPOSURE CHARGE.	
ABNORMAL EXPOSURES.		NORMAL EXPOSURES.	
SMALL.	LARGE.	Under 15 feet	Standard .9 of standard
Under 10 feet	Under 20 feet	15 feet	.9 of standard
10 feet	20 feet	15 feet	.9 of standard
15 "	30 "	20 "	.7 " "
20 "	40 "	25 "	.6 " "
25 "	50 "	30 "	.5 " "
30 "	60 "	35 "	.4 " "
35 "	70 "	40 "	.3 " "
40 "	80 "	45 "	.2 " "
45 "	90 "	50 "	.1 " "
50 "	100 "	60 "	.0 " "

For Abnormal Exposures, consult page 31.

# GENERAL EXPOSURE TABLE No. 2.

*For use in cities of grade 1, 2 or 3*

(The following table applies to normal exposures among all classes of buildings—for abnormal consult page 31.)

## Exposing Buildings.

	Frame or I.C. No. 1	I. C. No. 2 or Skele- ton I.C.	BRICK VENEERED			BRICK SHINGLE ROOF		Brick Metal Roof B. No. 1
			B. V. No. 1	B. V. No. 2	B. V. No. 3	C. No. 1	C. No. 2	
<b>Frame</b>	<b>.8</b>	<b>.8</b>	<b>.8</b>	<b>.7</b>	<b>.6</b>	<b>.5</b>	<b>.4</b>	<b>.3</b>
	<b><math>\frac{1}{5}</math></b>	<b><math>\frac{1}{5}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{2}</math></b>
<b>Iron Clad</b>	<b>.8</b>	<b>.8</b>	<b>.8</b>	<b>.6</b>	<b>.5</b>	<b>.4</b>	<b>.3</b>	<b>.3</b>
<b>No. 1</b> With exposed openings	<b><math>\frac{1}{5}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>
<b>No. 2</b> Without exposed openings	<b>.8</b>	<b>.8</b>	<b>.8</b>	<b>.5</b>	<b>.4</b>	<b>.3</b>	<b>.3</b>	<b>.2</b>
<b>Brick Veneered</b>	<b>.8</b>	<b>.8</b>	<b>.8</b>	<b>.6</b>	<b>.5</b>	<b>.5</b>	<b>.3</b>	<b>.3</b>
<b>No. 1</b> With shingle roof or wooden mansard	<b><math>\frac{1}{5}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{2}</math></b>
<b>No. 2</b> With metal roof and no parapet or with unprotected openings	<b>.7</b>	<b>.6</b>	<b>.6</b>	<b>.5</b>	<b>.4</b>	<b>.3</b>	<b>.2</b>	<b>.2</b>
<b>No. 3</b> With metal roof and parapet 12 in. high. No unprotected openings.	<b>.6</b>	<b>.5</b>	<b>.5</b>	<b>.3</b>	<b>.2</b>	<b>.2</b>	<b>.0</b>	<b>.0</b>
<b>Brick Shingle Roof</b>	<b>.6</b>	<b>.5</b>	<b>.5</b>	<b>.4</b>	<b>.4</b>	<b>.4</b>	<b>.3</b>	<b>.3</b>
<b>No. 1</b> Wooden mansard or shingle roof sloping towards exposure	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>
<b>No. 2</b> Shingle roof and parapet wall with unprotected openings	<b>.5</b>	<b>.5</b>	<b>.4</b>	<b>.3</b>	<b>.3</b>	<b>.3</b>	<b>.3</b>	<b>.2</b>
<b>No. 3</b> Shingle roof and parapet wall, all openings protected	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>
<b>W. D.</b>	<b>W. D.</b>	<b>W. D.</b>	<b>.0</b>	<b>.0</b>	<b>.0</b>	<b>.0</b>	<b>.0</b>	<b>.0</b>
<b>Brick Metal Roof</b>	<b>.4</b>	<b>.4</b>	<b>.3</b>	<b>.3</b>	<b>.2</b>	<b>.3</b>	<b>.2</b>	<b>.2</b>
<b>No. 1</b> Wall without parapet or with unprotected openings	<b><math>\frac{1}{4}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{3}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>	<b><math>\frac{1}{2}</math></b>
<b>No. 2</b> Parapet wall, all openings protected	<b>W. D.</b>	<b>W. D.</b>	<b>W. D.</b>	<b>.0</b>	<b>.0</b>	<b>.0</b>	<b>.0</b>	<b>.0</b>

NOTE 1: A brick veneered building which uses the wall of an adjoining brick or brick veneered building, should be treated as a B. V. No. 1 Building with reference to this wall.

NOTE 2: The absorbed exposure of all B. 1 buildings, with solid wall or protected openings, when separated by space, should be reduced one-half up to vanishing point of normal exposure. Net charge to be cumulative with wall damage if any.

NOTE 3: B. 2 buildings with fire shutters when over 2 stories, radiate same exposure as B. 1.

## EXTERNAL EXPOSURES.

### (Definitions.)

a. When the unexposed rate of a building has been computed by the preceding brick or frame tariff, this rate is referred to as its *Individual Rate*, or, if building has more than one occupancy, as its *Omnibus* or *Multiple Occupancy Rate*.

b. The amount added to Individual or Omnibus Rate for external exposure is referred to as the *Exposure Load*.

c1. The Individual Building Rate plus its Exposure Load is the Final Rate of building.

c2. The Individual Building Rate plus the Exposure Load of contents is the Exposed Rate of contents.

c3. The Exposed Rate of contents plus the contents differential, if any, is the Final Rate of contents.

d. A *Solid Frame Row* is one where the greatest clear space between any two buildings is less than 15 feet in towns of class 4, 4½, 5 or 6. (This refers to normal exposures. See Abnormal Exposures, page 31, and Frame Exposure Table, page 7.)

e. The highest rate (Individual or Omnibus) in a solid frame row is referred to as the *Nuclear Rate*, when exposure charges are to be added to it as a nucleus.

f. The Standard of Radiated Exposure is explained on pages 3 and 4.

### To Rate Solid Frame Rows.

#### Buildings.

(In towns of class 4, 4½, 5 or 6.)

g. Add to the Nuclear Rate the Standard Ratio of the sum of the Individual or Omnibus Rates of the other buildings in the row (see definitions above.) The total will be the rate of all buildings in the row.

(In cities of class 1, 2 or 3.)

h. Add to the Individual or Omnibus Rate of each building in the row, the exposure from each of the other buildings in the row, as shown by General Exposure Table No. 2. (See Examples 8, 15 and 16 for further information.)

NOTE: In these cities there is no difference in figuring exposures between solid and open rows, except that in the latter, reductions should be made for spaces, if any. In fine, exposures are to be figured as for non-transparent buildings, as shown by Examples 15 and 16.

### Contents.

(Under all grades of protection.)

j. All contents not on ground floor and not a part of the ground floor stock, take the same Exposure Load as the containing building.

k. Ground floor contents take the same Exposure Load as containing building, reduced for removability as shown by following table. (See following examples for particulars.)

### Contents Removability Table.

Showing ratio of exposure Load of ground floor contents, to exposure load of containing building.

	Class 1, 2 and 3	Class 4 and 4½	Class 5 and 6
Removable.....	90%	80%	70%
Semi-removable.....	100%	90%	80%
Non-removable.....	100%	100%	100%

NOTE: When the final rates of the several buildings in a row have been figured on the Rating Sheets furnished with this system and the proper reduction for removability has been made for each of the ground floor contents, the proper differential, if any, should be added to the exposed rate of each occupancy in order to obtain its published rate. (See Frame Contents Table, page 58, Frame Tariff.) This is not shown in following examples for the reason that the contents differential is not a part of exposure hazard.

## *NOTICE.*

In all the following examples, the Individual or Omnibus Rate of each building unless otherwise stated is arbitrarily assumed for sixth class towns, and the standard of radiated exposure used, is stated with each example. (See Alternative Standards, page 4.)

## **SOLID FRAME ROWS.**

**EXAMPLE No. 6.**

Solid row of Frames with single occupancies.

	1	2	3	4	5
EXPOSURE STANDARD					
40%					
BAKERY.					
GROCERY					
CLOTHING	X	-	X	-	X
OFFICE					

Individual Rates..... \$1.50 \$1.58 \$1.50 \$1.88 \$1.25  
(Exposures.)

40% of others added to Nuclear Rate 2.33

*Final Rate of Buildings.*..... 4.21  
 Exposure Loads of each building.... 2.71 2.63 2.71 2.33 2.96

(Contents.)

Removable 70% of Exposure Loads...	1.90	1.84				
------------------------------------	------	------	--	--	--	--

Semi-remov. 80% of Exposure Loads 2.17 1.86 2.37  
 Individual Rates brought down..... 1.50 1.58 1.50 1.88 1.25

*Exposed Rates of Contents* ..... \$3.40 \$3.42 \$3.67 \$3.74 \$3.62

The exposure load of each building is found by subtracting its Individual Rate from the Final Rate.

The exposure load of contents in each case is the ratio or percentage of building exposure load shown by Table page 9.

percentage of building exposure load shown by Table, page 9.

**EXAMPLE No. 7.**

Solid row of Frames with single occupancies, embracing special hazards.

EXPOSURE STANDARD  
40%

**Individual Rates.....\$3.00 \$2.25 \$1.25**  
*(Exposures.)*

40% of others added to Nuclear Rate..... 1.40

Fig. 1. Building B at the site of the former U.S. Army Hospital.

Final Building Name..... 110

Exposure Loads of each building..... 1.40 2.15 3.15  
*(Contents.)*

(Contents.) Removable 70% ..... 98

Removable 10%..... .98  
Semi-removable 80%..... 2.52

Non-removable 100%..... 2.15  
In-litigant P. 100%..... 2.00 2.05 1.95

Individual Rates brought down..... 3.00 2.25 1.25

*Exposed Rates of Contents* ..... \$3.98 \$4.40 \$3.77

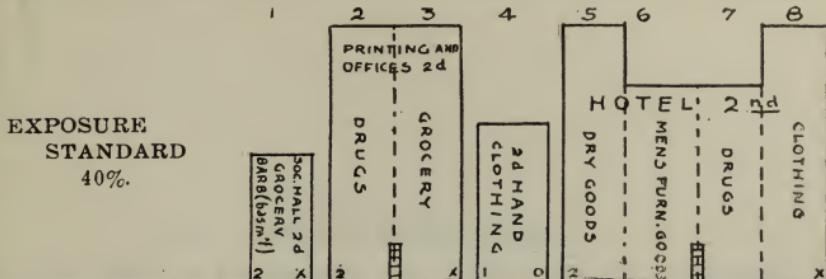
The live and rolling stock in livery stable are removable, while

The live and rolling stock in livery stable are removable, while hay, grain and feed are non-removable and take final building rate as

hay, grain and feed are non-removable and take final building rate as their exposed rate.

EXAMPLE NO. 8.

Solid Row of Frames with single occupancy and omnibus buildings.



Individual and Omnibus

Rates .....	\$1.79	\$3.20	\$1.78	\$4.15
(Exposures.)				
40% of others to highest				2.71
<i>Final Rate of Buildings</i>				6.86
Exposure Loads.....	5.07	3.66	5.08 (	2.71 )
(Contents.)				
Removable 70%.....	3.55	2.56	1.90	1.90
Semi-removable 80%...	2.93	1.06	2.17	
Indiv. Rates bro't down	1.79 (3.20	3.20)	1.78 (4.15	4.15 4.15 4.15)
<i>Exposed Rates of ground floor contents.....</i>	5.34	6.13	5.76	5.84
			6.05	6.05
			6.32	6.05

It will be noted that solid rows containing Omnibus Buildings are rated in the same manner as solid rows of single occupancy buildings, the omnibus rate serving in lieu of individual rate.

SAME EXAMPLE.

(Figured from General Exposure Table No. 2 for cities of Class 1, 2 or 3. See directions, page 9, section h.)

NOTE: The same rates are used for purposes of comparison, but the standard of 30% is used instead of 40%.

	1	(2. 3.)	4	(5 to 8)
Individual or Omnibus Rates.....	\$1.79	\$3.20	\$1.78	\$4.15
(Exposures.)				
1 to others.....		.43	.34	.27
(2. 3.) "	.77		.77	.82
4 "	.34	.42		.42
5-8 "	.64	.80	1.00	
<i>Final Building Rates.....</i>	\$3.54	\$4.85	\$3.89	\$5.46

Explanatory—In General Exposure Table No. 2, the decimal .8 is the ratio of exposure standard, (i.e., 30% of the rate of each exposing building), the computation on above examples being as follows:

- No. 1. Rate  $1.79 \times 30\% = 54 \times .8 = 43$ c exposure to No. 2.  
 $43c \times .8 = 34$ c exposure to No. 3.  
 $34c \times .8 = 27$ c exposure to No. 4.

The exposure is figured in same manner from each building to all the others, and in long rows should be continued until the charge is below 5c.

NOTE: The Exposure Load is found in same manner as in regular example above, but the deduction for removability applies only to removable stocks and is 90% instead of 70% as in regular example. (See Table, page 9.)

### OPEN FRAME ROWS.

Definition: An open frame row is composed of single exposing buildings (either omnibus or single occupancy) between which the clear spaces exceed the maximum clear space in solid rows. (See definition of Solid Frame Rows, page 9.)

NOTE: In *open* rows, under all grades of protection, each building radiates exposure to all the others.

(Buildings.)

Reduce the radiated exposure of each building for space to next building and note the net amount under its individual rate. Reduce this amount for space to next building and note under its rate and so on to the last exposed building or until the charge becomes reduced by successive transmissions to less than five cents when it may be waived.

This process should be repeated in turn for each of the several buildings, and when a building stands between others, its radiated exposure should be figured as above in both directions. The sums so noted under the rate of each building constitute its absorbed exposure and should be added to its individual rate to obtain its final rate.

(Contents.)

The individual or omnibus rate of each building, if deducted from its final rate, will give its exposure load, and the ratio of this load shown by Contents Removability Table, page 9, will be the exposure load of its contents. This should be added to individual or omnibus rate of building to obtain exposed rate of its contents.

EXAMPLE No. 9.

Open row with single occupancies.

EXPOSURE STANDARD 40%	1 HARNESSES X	2 CLOTHING X	3 BOOTS & SHOES X	4 GROCERY X
Individual Rates .....	\$1.50	\$1.50	\$1.50	\$1.50
(Exposures.)				
No. 1 to others.....	.42	.25	.18	
No. 2 to others.....	.42	.36	.25	
No. 3 to others.....	.25	.36	.42	
No. 4 to others.....	.18	.25	.42	
<i>Final Rates, Buildings.</i> .....	<u>2.35</u>	<u>2.53</u>	<u>2.53</u>	<u>2.35</u>
Exposure Loads..... (Contents.)	.85	1.03	1.03	.85
Removable (all) 70%.....	.60	.72	.72	.60
Individual Rates brought down.	<u>1.50</u>	<u>1.50</u>	<u>1.50</u>	<u>1.50</u>
<i>Exposed Rates, Contents.</i> .....	<u>\$2.10</u>	<u>\$2.22</u>	<u>\$2.22</u>	<u>\$2.10</u>

In above example, each building radiates 40 per cent of its individual rate, which amount is successively reduced for space as it is transmitted from building to building, thus:

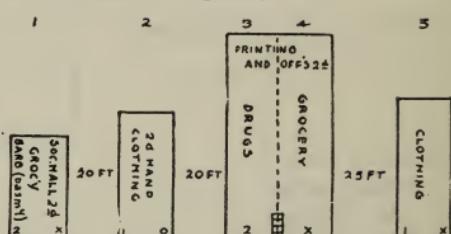
The radiated exposure of No. 1 across 20 ft. space to No. 2 is seven-tenths of 60c. or 42c.; six-tenths of this is transmitted across 25 ft. space from No. 2 to No. 3 (i. e., 25c.) and seven-tenths of 25c. is transmitted across 20 ft. space to No. 3 (i. e., 18c.).

The exposure of each of the other buildings is figured in like manner, except that Nos. 2 and 3 radiate exposure in both directions.

EXAMPLE No. 10.

Open row; omnibus and single occupancy.

**EXPOSURE STANDARD**  
40%



	Individual and Omnibus Rates.....	\$1.79	\$1.78	\$3.20	\$1.50
(Exposures.)					
1 to others.....			.50	.35	.21
2 to others.....		.50		.50	.30
(3 4) to others.....		.63	.90		.77
5 to others.....		.18	.25	.36	
<i>Final Rates, Buildings.....</i>	<u>3.10</u>	<u>3.43</u>	<u>4.41</u>	<u>2.78</u>	
<i>Exposure Loads.....</i>	<u>1.31</u>	<u>1.65</u>	<u>1.21</u>	<u>1.28</u>	
(Contents.)					
Removable 70%.....		.92		.85	.90
Semi-removable 80%.....			1.32	.97	
Individual and Omn. Rates brought down .....	<u>1.79</u>	<u>1.78</u>	<u>(3.20</u>	<u>3.20)</u>	<u>1.50</u>
<i>Exposed rates of ground floor contents.</i>	<u>2.71</u>	<u>3.10</u>	<u>4.17</u>	<u>4.05</u>	<u>2.40</u>

EXAMPLE No. 11.

Open row of single occupancy buildings with solid groups.

EXPOSURE STANDARD 40%	1 HARNESS x	2 CLOTHING x	3 BOOTS & SHOES x	4 JEWELRY x	5 DRY GOODS x	6 GROCERY x
		20 FT		15 FT		25 FT
Individual Rates .....	\$1.50	(\$1.50	\$1.58)	(\$1.50	\$1.50)	\$1.50
(Exposures.)			.60		.60	
1 to others.....			.42		.38	.23
(2, 3) to others.....	.86				1.11	.67
(4, 5) to others.....	.76		1.08			.72
6 to others.....	.22		.32		.36	
<i>Final Rates, Buildings..</i>	3.34		4.00		3.95	3.12
Exposure Loads.....	1.84	(2.50	2.42)	(2.45	2.45)	1.62
(Contents.)						
Removable (All) 70%..	1.29	1.75	1.69	1.72	1.72	1.13
Indiv. Rates bro't down.	1.50	1.50	1.58	1.50	1.50	1.50
<i>Exposed Rates, Contents</i>	\$2.79		\$3.25	\$3.27	\$3.22	\$3.22
						\$2.63

In the preceding example, the first step is to bracket the individual rates of each solid group and note under the nuclear or highest rate of the group, the radiated exposure of the other building or buildings in the group. In group (4-5) the rates of the two buildings being the same, it is immaterial which is used as nuclear. (See Note below.)

The exposure radiated by each solid group to the other buildings or groups is 40 per cent. of the sum of the individual and omnibus rates of all buildings in the group.

For example, group (2-3) radiates 40 per cent. of \$3.08 reduced for space to other buildings or groups and group (4-5) radiates 40 per cent. of \$3.00 reduced for space. Otherwise exposures are figured as directed for open rows.

The exposure load of each building in a solid group is the difference between its individual rate and the Final Building Rate of the group, and the exposure load of its contents is the ratio of the building-load shown by Contents Removability Table, page 9.

NOTE: The treatment of solid groups in open rows, explained by above remarks, does not apply to cities of Class 1, 2 or 3, in which it is only necessary to charge the exposure from each building to every other building, using the ratios from General Exposure Table No. 2.

#### OPEN AND SOLID FRAME ROWS (MIXED).

When a row of frame buildings contains a mixture of single buildings and solid groups or rows, it should be rated as follows:

##### (Buildings.)

First note under the nuclear rate of each solid group the radiated exposure of the other buildings in the group, as if rating a solid row.

Proceed as directed for open rows, noting all exposures to the solid rows under the nuclear rate of each, and the exposures to the single buildings under their individual or omnibus rate as the case may be. Then foot up the exposures noted under each building or solid row and the totals will be their final rates.

NOTE: The exposure radiated by each solid row is the standard ratio of the sum of the individual or omnibus rates of all buildings in the row, reduced for spaces to other buildings or rows. In other words, each solid row radiates exposure as if it were one building bearing a rate equal to the total rates of the several buildings in the row.

##### (Contents.)

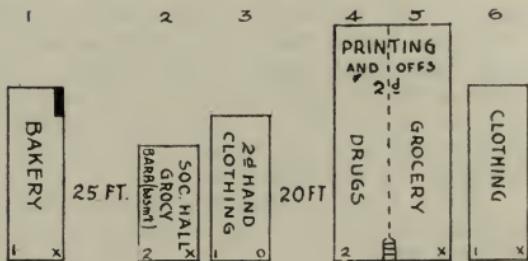
The exposure load of each building will be found by subtracting from the final rate, its individual or omnibus rate. This holds good whether the building is single or part of a solid row.

The exposure load and exposed rate of contents are found from the exposure load of each containing building in the same manner as directed for solid and open rows.

EXAMPLE No. 12.

Open row with single and multiple occupancy buildings in solid groups and separated.

EXPOSURE  
STANDARD  
40%



	1	2	3	4	5	6
Indiv. and Omnibus Rates..	\$2.00	(\$1.79	\$1.78)	(\$3.20	\$1.50)	
(Exposures.)		.71		.60		
1 to others.....		.48		.34		
(2, 3) to others.....	.86				1.00	
(4, 5, 6) to others.....	.79	1.32				
<i>Final Rates, Buildings.....</i>	3.65	4.30		5.14		
Exposure Loads .....	1.65	(2.51	2.52)	(1.94	3.64)	
(Contents.)						
Removable 70%.....		1.76		1.36)	2.55	
Semi-removable 80%.....	1.32		2.02	(1.55		
Individual and Omnibus Rates						
brought down.....	2.00	1.79	1.78	3.20	3.20	1.50
<i>Exposed Rates of ground floor</i>						
contents.....	\$3.32	3.55	3.80	(4.75	4.56)	4.05

### BUILDINGS OTHER THAN FRAME.

#### TRANSPARENT CLASS.

The preceding examples, which show the various combinations in Frame Row Exposure, have all been figured from Frame Exposure Table, page 7.

Other exposures should be figured from General Exposure Table page 6. By referring to this table, it will be seen that, in lieu of a decimal ratio, the word "All" appears a number of times in the upper left hand corner of the Table. This word indicates that the buildings so designated, impart all, instead of a part, of the standard ratio to each other. They are referred to as transparent because they transmit all the exposure they absorb from one side to contiguous buildings on the other side.

When these transparent buildings stand in solid groups they are rated in the same manner as solid rows of frames, both as to buildings and contents.

#### EXAMPLE 13.

##### *Transparent Buildings. Solid Row.*

EXPOSURE STANDARD 40%.	1 FRAME 2 x	2 BRICK VENEER 2 x	3 IRONCLAD 2 o	4 BRICK VENEER 2 x	5 FRAME 2 x
Individual Rates (Exposures.)	\$1.50	\$1.35	\$1.41	\$1.46	\$1.50
40% of the rate of others to highest	2.29				
Final Building Rate	\$3.79				

The rates of contents in above example are established from Contents Removability Table, page 9, in the same manner as for contents of solid frame rows.

(Open Rows.)

Transparent buildings, situated in open rows, are rated in the same manner as open frame rows, except that the reductions for space should be made according to the nature of the walls facing each space as indicated by General Exposure Table.

(Solid and Open Rows, Mixed.)

When a solid group of transparent buildings is found in an open row, these buildings should be bracketed and dealt with in the same manner as a solid group in a frame row (i. e., the exposure of the other buildings in the group should be noted under the nuclear rate). Each group radiates exposure from the sum of the individual rates of its buildings, though deductions for space are determined by the buildings that face space.

EXAMPLE No. 14.

Transparent Class, Open Rows with Solid Groups. Same buildings as preceding example.

EXPOSURE STANDARD 40%	1 FRAME 2 X	2 BRICK VENEER 2 X	3 IRON CLAD 2 0	4 BRICK VENEER 2 X	5 FRAME 2 X
Individual Rates (\$1.50 (Exposures.) .54	\$1.35)		(\$1.41	\$1.46)	\$1.50
(1, 2) to others..				.56	.19
(3, 4) to others.. .57				.38	.57
5 to others..... .18				.36	
<i>Final B'dg Rate \$2.79</i>				2.76	2.26

In the above example group (1-2) radiates the exposure of a B. V. 1 building to an I. C. 2 reduced two-thirds for 20 ft. space. The net amount (38c.) is transmitted from (3-4) to 5 as the exposure of a B. V. 1 to Frame, being reduced one-half for 20 ft. space.

Group (3-4) radiates exposure to (1-2) as an I. C. 2 to a B. V. 1 and to 5 as a B. V. 1 to Frame, proper reduction being made in each case for space.

Building 5 radiates exposure to (3-4) as Frame to B. V. 1 reduced for space. The net amount (36c.) is transmitted to group (1-2) as the exposure of an I. C. 2 to a B. V. 1 being reduced one-half for 20 ft. space.

NOTE: The character of the facing walls always determines the ratio of exposure and the reduction for space. No matter how many or how diversified the buildings in a solid group, the exposure that comes to the group from one side is transmitted to buildings on the other side, according to the walls that face the space.

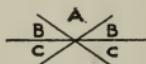
### BLOCK RATING SHEETS.

In figuring exposures, it is not always possible to do so from a map or diagram and even with this information before him, the rater will find his work expedited by the use of the Block Rating Sheets which accompany this tariff.

Besides other useful features, these sheets provide for the notation of information that, in the absence of a map, is indispensable to the computation of exposures. Aside from the structure of the exposing buildings and their individual rates, it is necessary to know three things:—

- 1st.—The distances between buildings (clear space).
- 2nd.—The decimal ratio of exposure standard.
- 3rd.—The denominator of the fraction in General Exposure Table, which indicates the reduction for space.

The Block Sheets contain a diagram which consists of a repetition of the following sketch showing two arrow heads pointing towards each other:



Each arrow head points in the direction of radiated exposure and in noting exposures the distance between buildings should be entered at A. The decimal ratio of exposure standard, radiated by each of the facing walls should be noted at B. B. and the reductions for each ten feet of clear space should be noted at C. C.

When the exposure radiated by a building is standard, the letter "A" (for "All") should be noted where B. B. appear in sketch. The letters W. D. may be used to indicate wall damage exposure.

All solid groups of transparent buildings should be bracketed in block-sheet and otherwise treated as in Example 14. Notations concerning a group need be made only over the buildings that face the clear spaces on either side.

It is always advisable, preparatory to figuring out a complicated situation, to note the necessary information in Block Rating Sheet as the remaining computations consist of simple multiplication and addition.

Example 14 worked out on a block-sheet would appear as follows:

	EXPOS STAND 4.0%	1	2	3	4	5
INDIVIDUAL RATES		(1.50)	(1.35)	(1.41)	(1.46)	1.50
(EXPOSURES)		54			56	
(12) TO OTHERS	1.14				38	19
(34) .. "	1.15	.57				57
5 .. "	60	18			36	
FINAL RATES, BUILDINGS		12.79			2.76	2.26

NON-TRANSPARENT CLASS.

Buildings not designated by the word "All" in General Exposure Table do not transmit all the exposure they absorb, hence they cannot, when in solid rows, be grouped by brackets, as it is necessary to figure exposure successively from building to building, using for this purpose the percentages found in General Exposure Table.

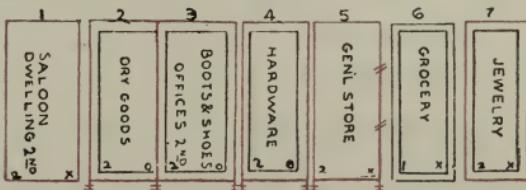
Examples 15 and 16 show the same buildings, the former in a solid row, and the latter in an open row with solid groups. As buildings 6 and 7 in both examples are transparent and contiguous, they constitute a solid group, hence they are bracketed and the exposure of 6 to 7 noted under the latter.

Transmitted exposures to brick buildings may be waived when less than three cents.

In both these examples the diagram is placed for comparison above a ruled form similar to Block Rating Sheet, and as all the notations are entered in the form no further explanations are necessary. The exposure standard used in both examples is 50 per cent.

EXAMPLE NO. 15.

*Non-transparent class. Solid row.*



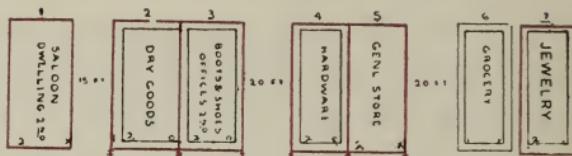
NOTES	INDIVIDUAL RATES (EXPOSURES).	STANDARD 50%	.2	.4 .5	.5 .2	.2 .0	.0 .0	.7 .5	A A
			.2	.4 .5	.5 .2	.2 .0	.0 .0	.7 .5	A A
			\$ 1.00	1.35	1.35	1.35	1.00	(1.41)	1.46)
									.71
	I TO OTHERS	.50		.10	.05				
A.	2 " "	.68	.27		.34	.07			
	3 " "	.68	.13	.34		.14			
	4 " "	.68		.07	.14				
B.	5 " "	.50							
	(6.7.) " "	1.44					.72		
	FINAL BUILDING RATES		\$ 1.40	1.86	1.88	1.56	1.72		2.17

NOTE A: Building 2 has no independent wall adjoining 3, hence it is treated as a B. V. 1 with reference to this wall. (See General Exposure Table, Note 1.)

NOTE B: Openings in the second story of Building 5 are above the roof of Building 6, hence its radiated exposure is negligible. (See Buildings of Unequal Height.)

EXAMPLE No. 16.

Same buildings as preceding example, separated by spaces.



NOTE	STAN-DARD 50%	.2	.15	.4	.5	.5	.2	.20	.2	0	.6	.20	.5	A	A
INDIVIDUAL RATES		\$ 1.00		1.35		1.35		1.35		1.00	(1.40		1.46)		
(EXPOSURES)															.71
1 TO OTHERS	.50						.05								
2 " "	68		.18					.34							
3 " "	68		.09		.34										
4 " "	68														
5 " "	50														
(6.7.) " "	1.44										24				
FINAL BUILDING RATES		\$ 1.27		1.74		1.69		1.35		1.24					2.17

NOTE:—The 15 ft. space between 1 and 2 is treated as a 10 ft. space.

The exposure loads and final rates of contents of all the buildings in Examples 14, 15 and 16 are found in the same manner as for the contents of exposed frame buildings, excepting the contents of brick building No. 1 in Examples 15 and 16.

The method of treating the contents of exposed B. and C. buildings (i. e., buildings with brick or stone walls) will be explained in the next section.

## CONTENTS OF EXPOSED B. AND C. BUILDINGS.

(*Exposure Load.*)

The ground floor contents of these buildings possess the quality of removability as well as damageability, though the probability of removal is not so great as with the contents of frame rows. Where external exposure is heavy, it has been the practice among raters to add less for exposure to contents than to building, though there has been no rule upon the subject.

In such cases, Contents Table, page 9, may be used to establish the exposure load of contents. In a large majority of cases, however, the exposure load of brick buildings is so small that it does not justify the labor of computing the difference. For this reason and in order to make a reasonable allowance for the smaller probability of removal it is suggested that when the building load does not exceed 20 cents, the same load be added to contents as to building. When the building exposure load exceeds 20 cents the following rule may be applied.

**RULE.**—Deduct from building-exposure load 20 cents and add to contents the ratio of the remainder shown by Contents Table (page 9), plus the 20 cents deducted.

**EXAMPLE.**—Removable contents under sixth class protection:

Exposure load to building, \$1.00—20c=80c×70% = 56c + 20c = 76c.

The brick rating sheets furnished with Tariff provide for this method of figuring contents.

For contents of buildings subject to wall damage, see Wall Damage Exposure.

## FALLING WALL EXPOSURE.

(Not to apply to exposure from buildings of steel construction.)

When a building is exposed to damage from falling wall of a brick or stone building, the following charge is to be taken as a percentage of the individual rate of exposing building:

If exposing wall is two stories higher than exposed building, add 2% Increase charge 1% for each story over two.

Charge for falling wall exposure is cumulative with other exposures.

**NOTE:** The area of probable damage from a falling wall equals the area of the wall itself, less the area, braced by the wall of adjoining building, if any, and the probable damage, anywhere in this area, is about the same. Instead of falling rigidly, however, walls frequently buckle, especially when forced outward by explosion, and a reasonable allowance in distance should be made for this contingency.

In view of these facts, the above charge may be reduced one-half for second exposed building within radius of wall's possible fall, and the charge waived for buildings beyond this.

If second building has a blank exposed wall, the height of exposing wall may be figured from top of this building, if it is higher than wall of nearest exposed building.

## **WALL DAMAGE EXPOSURE.**

*(From Frame and Iron-Clad Buildings to Buildings with Fire Wall.)*

**NOTE:** Wall damage is largely caused by the heat generated by nearest building. Buildings beyond this simply multiply the chances of fire.

### *Building.*

a. Add 10 per cent of basis rate of nearest exposing building, plus 5 per cent of excess of its final rate over the basis rate.

In towns of classes 5 and 6 reduce above charge one-fourth for each 5 feet of clear space.

In towns of Classes 4 and  $4\frac{1}{2}$ , take 80 per cent of above and reduce one-fourth for each 5 feet of clear space. In cities of Classes 1, 2 and 3, take 60 per cent and reduce one-third for each 5 feet of clear space.

**NOTE:** The final rate of exposing building should first be reduced by the amount of exposure it has received from the building with fire wall or from a direction that does not contribute to its wall damage.

b. When exposed fire wall has openings, all of which are protected by standard fire doors or shutters or wired glass, wall damage as figured above should be increased one-fourth, not exceeding direct exposure.

c. When wall is deficient in thickness, increase wall damage charge from one-fourth to one-half according to size and distance of exposure, and thickness of wall, not exceeding direct exposure.

d. When nearest building is long enough to expose the unprotected rear, see Buildings of Unequal Length.

e. When exposing building rises above fire wall of a building so as to expose or be exposed by its roof, see Buildings of Unequal Height.

f. When a brick-veneered building has neither independent nor party wall, but utilizes the wall of brick building it adjoins, charge wall damage to the latter as directed in section a.

g. Any exposing building that is negligible with reference to ordinary exposures on account of its small size, should be treated as negligible with reference to wall damage exposure, though when part of a row, space should be measured from exposed wall to the nearest building beyond it.

*h.* When nearest building is a small, one story, but not small enough to be negligible, rater may use discretion in reducing wall damage exposure charge, one-half or one-third, according to the relative dimensions of exposing building and exposed wall, though, if a small two-story building, it should be considered as a one-story of twice its length.

*j.* Increase wall damage exposure one-half or one-third when nearest building grades as large by Dimension Table or when exposure is from a frame row grading as large in 5th and 6th class towns. Wall damage should not exceed direct exposure.

*k.* Dwellings are negligible, not on account of their small size, but of their low hazard. When a dwelling is the nearest building, treat it as an area of combustion and figure exposures from first building beyond as directed in Section *a*. When dwelling is only exposure, it may be treated as negligible.

*l.* Angular wall damage exposures to fire walls may be treated as negligible.

*Contents.*

*In towns of Classes 4, 4½, 5 and 6,* add to rate of contents one-half the amount charged to building itself.

*In cities of Classes 1, 2 and 3,* waive wall damage charge to contents  
The above applies to contents of all floors.

### COMMUNICATING OCCUPANCIES.

When all openings in a division or party wall are protected by standard fire doors, the mutual exposures of the divisions so separated should be figured by the following Table, the several percentages being ratios of the occupied building rate of the exposing division. Communication charges should not be transmitted.

**TABLE OF CHARGES.**

NOTE: The charges in the following Table apply to contents. The charge to the building itself should be the same as that to contents grading D. 1.

#### Standard Fire Doors on Both Sides of Wall.

#### *Exposing Occupancies.*

Exposed Occupancies.	C1	C2	C3	C3½	C4	C4½	C5
D. 1, 1½ .....	2%	3%	4%	5%	6%	8%	10%
D. 2, 2½ .....	2%	3%	4%	6%	8%	10%	12%
D. 3, 3½ .....	3%	4%	5%	7%	10%	12%	15%
D. 4.....	4%	5%	6%	8%	13%	15%	18%

a. Increase charge in above Table one-fifth for each opening over one up to double the charge, but the total charge should in no case exceed 80% of the increase that would result if buildings were rated omnibus.

b. When wall has standard fire doors on both sides of wall but not automatic, or standard fire door on only one side of wall, double the total charge. When standard vault doors on both sides, reduce the total charge one-half.

c. Communication charges may be waived from buildings grading as small by Dimension Table when combustibility of exposing building is (C. 3) or lower.

d. No charge for exposure through enclosed bridges with standard fire door at each end.

e. Communication charges are cumulative with exposure, including wall damage. Wall damage should not be increased account protected openings charged for under communication charges.

f. Occupancies classing C 6 and C 7 (i. e., Indefinite and Unclassifiable) radiate exposure according to their charge in Column 2, Alphabetical List. (See Combustibility Charges in Appendix.)

### EXPOSURE THROUGH PARTY FIRE WALLS.

(Not cumulative with communication charges.)

Charge to the exposed building and its contents the following percentages of the occupied building rate of the exposing building.

1. If the exposing building grades "Large" (see Table, page 32. Exposure Formulas) and its occupancy is starred but not explosive, charge ..... 3%
2. If exposing building grades "Large" or "Ordinary," and its occupancy is both starred and explosive, charge ..... 5%  
(If exposure is found through both fire wall and exterior openings, charge for the more hazardous. (See Elective Exposures, page 30, Exposure Formulas).

NOTE 1: Among others, petroleum and its products, wholesale stocks of paints, oils and varnish; and wholesale drugs, without restrictive clause, should be classed as Explosive.

NOTE 2: When charge for exposure through party fire wall exceeds communication charge, the former should apply.

### BUILDINGS OF UNEQUAL HEIGHT.

NOTE: In the mutual exposures of frame or iron-clad buildings, inequality of height is provided for under the head of Abnormal Exposures.

a. In general, all buildings, excepting those of so-called fireproof construction, are of about equal combustibility, except as to their walls, which serve to intercept the lateral spread of fire in a degree corresponding to the character of facing wall. When exposing frames or iron-clads rise above the roof of buildings with brick or brick-veneered walls, in the absence of unprotected openings, exposure is radiated through roof of the latter instead of through facing wall.

In such cases it is proper to treat the lower building as radiating exposure, using the ratios provided in General Exposure Table. For example, a B. 2 building should be treated as a B. 1; a C. 3 as a C. 2, and a B. V. 3 as a B. V. 2; i. e., each building is to be treated as if radiating exposure through lateral openings.

b. As to the exposure absorbed through roof by a brick building without openings from higher frames or iron-clads, the parapet is protective in proportion to its height.

It is proper in such cases to treat the exposed building as directed in Section a (i. e., as a B. 1) and if the parapet is 18 inches or over reduce the regular exposure charge according to height of parapet by the following scale used for Angular Exposure:

If parapet is 18 inches or over, but under three feet high, treat as "diagonal," reducing charges two-thirds.

If parapet is over three and under five feet high, treat as "glancing," reducing charge three-fourths.

If parapet is over five feet high exposure charge may be waived.

The above charges are cumulative with usual charge for wall damage, and when space intervenes between exposed and exposing buildings the entire charge may be reduced for space by the wall damage scale, i. e., one-fourth for each five feet in towns of classes 4, 4½, 5 and 6, and one-third for each five feet in towns of classes 1, 2 and 3.

c. When a B. 2 building, between frame or iron-clad buildings, is not high enough to intercept the direct exposure of these buildings to each other across its roof, it may be treated as a clear space equal to its width in figuring the exposures of these buildings to each other, the building itself radiating its own exposure as a B. 1 building and absorbing exposure from the other buildings, as before directed.

d. When the B. 2 building, however, is large enough to cut off all exposure between the frame, iron-clad or brick-veneered buildings, excepting that of roof to roof across its top, treat the mutual exposure of two shingle roofs as that of two C. 1 buildings at an equal distance. When the roof of either building is metal clad, its absorbed exposure may be ignored.

e. When a C. 3 building is exposed by frames or iron-clads:

If exposed wall is one story higher, charge regular wall damage.

If less than one story higher, increase wall damage one-half for overlapping exposure to roof.

If lower than exposing building, treat it as a C. 2 building.

f. When a B. V. 3 building is exposed by frame or iron-clad buildings that are higher than itself, it should be treated as a B. V. 2.

g. When two B. V. 3 buildings adjoin, the veneering of the two walls constitutes an equivalent for a solid 8-inch brick wall. When the two buildings are of equal height they may both be consistently treated as B. V. 3 buildings, but when one of the buildings rises above

the other, the roof of the lower building radiates exposure as a B. V. 2 against a wall of only four inches thickness. In such cases exposures should be figured as follows:

The lower building radiates exposure to the higher as a B. V. 2 and absorbs exposure as a B. V. 3.

The higher building radiates exposure to the lower as a B. V. 3 and absorbs exposure as a B. V. 3.

*h.* When facing wall of a B. building, without parapet, rises at least three feet above building it exposes, it may be considered as the equivalent of a parapet for the lower building, and when it rises one story or more above, it may be considered as a parapet for both buildings.

NOTE: When buildings adjoin, openings, if any, should be not less than 18 inches above its roof to constitute a parapet for lower building.

*j.* Facing walls of B. buildings *without parapet*, with openings, if any, protected, radiate and absorb exposure with reference to other B. buildings as follows:

1. Buildings adjoining with less than 6 inches difference in height, treat both as B. 1, and reduce charge to lower, one-fourth.

2. Same as No. 1, with 6 inches or over, and under 18 inches difference in height, treat both as B. 1. Reduce charge to upper one-fourth, and to lower, one-half.

3. Same as No. 1, with 18 inches or over, and less than 5 feet, treat both as B. 1. Reduce charge to upper, one-half, and waive charge to lower.

4. Same as No. 1, with 5 feet or over, and less than one story difference in height, treat higher as B. 1, less three-fourths, and lower as B. 2.

5. If over one story difference, treat both as B. 2.

*k.* If openings in higher wall of two adjoining buildings are less than 6 inches above roof of lower, the latter absorbs exposure as B. 1, reduced one-fourth.

If 6 inches or over, and less than 18 inches, lower building absorbs as B. 1 reduced one-half.

If 18 inches or over, treat the lower building as B. 2.

NOTE: For absorbed exposure of higher building, see Angular Exposures, item *e*.

#### BUILDINGS OF UNEQUAL LENGTH.

When a B. 2 building stands between two frame or iron-clad buildings, but is not long enough to cut off the exposure of the rear end of these buildings to each other, the following modification of their mutual exposure charge may be made:

*a.* If both rears project beyond the rear of the B. building less than 5 feet, or one is flush with rear of brick, and the other projects less than 10 feet, treat their mutual exposures as negligible.

*b.* If both project over 5 and less than 10 feet, or one projects over 10 and less than 20 feet, while the other projects less than 5 feet, their ordinary exposure to each other (diminished for space) may be reduced one-half.

*c.* If both project 15 feet or over, charge ordinary exposure, reduced for space.

NOTE: For the exposures of the rears to the intervening B. building, consult Angular Exposures and Wall Damage.

When a brick metal roof building with parapet walls and exposed openings is larger than the frame or iron-clad buildings which it adjoins, consult Angular Exposures.

### **ANGULAR EXPOSURES.**

(To brick walls).

a. Other things being equal, angular exposure, in itself is less than direct or facing exposure at the same distance, but when found in combination it should not be treated as cumulative with direct exposure when the latter is larger than the angular exposure, excepting Wall Damage Exposure.

b. When, for instance, a B. building (No. 1) is directly exposed by a frame, the exposure charge is not to be increased because the frame extends far enough to the rear to expose the rear openings of the B.; but if the exposed wall is a fire wall and the frame in addition to its direct exposure to wall is long enough to impart angular exposure to unprotected openings in the rear, the charge for such exposure should be cumulative.

c. The charge for angular exposure should be proportionate to the angle. If over, say, 20 degrees, with reference to nearest exposed opening, it may be designated as "Diagonal", and if less than 20 degrees as "Glancing". Diagonal may be counted as one-half and Glancing as one-fourth the charge for direct exposure at equal distance (other things being equal).

NOTE: When cumulative with Wall Damage the charge for Diagonal may be made one-third instead of one-half.

d. Angular Exposure is applicable to mutual exposures arising from openings in brick walls. It is possible for openings to exist in two such walls, which, because of the fact that they do not face each other, constitute diagonal, glancing or even negligible exposures. Such cases are necessarily left to the discretion of the rater.

e. Angular Exposure also applies to parapeted brick walls with openings faced by frames or iron-clads when the openings are at a distance from the end of the latter or by bricks, frames or iron-clads when the openings are not lower than the third story above the exposure. When the openings are in the first or second story above the exposing building, exposure should be treated as direct.

f. When openings are found in that part of building which extends beyond the rear of the exposing frames or iron-clads, distances should be measured from nearest point of exposing building to nearest opening, and charge made for diagonal or glancing exposure as circumstances may require.

### **FIRE-STOP WALLS.**

An approved brick wall built as a fire-stop in frame rows should be treated as follows:

a. When wall rises only to eaves of buildings it separates, treat it as equivalent to a clear space of 20 feet, or if either building has a metal roof, as equivalent to a clear space of 30 feet with respect to this building.

b. When wall rises even with or above the roof-combs of buildings it separates, treat it as equivalent to a clear space of 30 feet, or if either building has a metal roof, as equivalent to a clear space of 40 feet with respect to this building.

If wall has unprotected openings, reduce the spaces under a and b one-half.

d

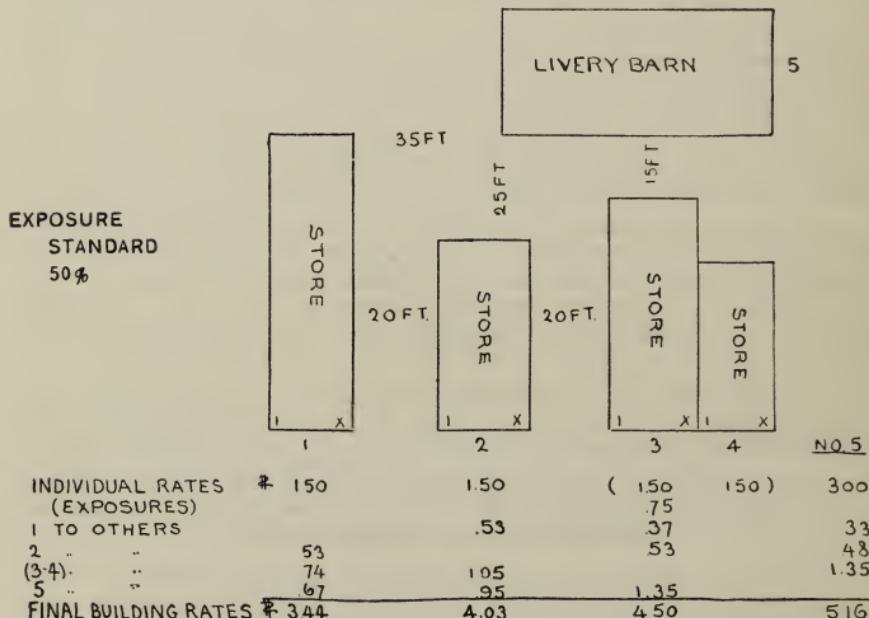
**ELECTIVE EXPOSURES.**

When frame or iron-clad buildings are not situated in straight rows, but expose each other in solid groups, they are rated in the same manner as ordinary solid rows.

When spaces are found among buildings so situated, it often happens that a building or group exposes another building or group in such manner that it is possible to measure the exposure in more than one way. In such cases it should be borne in mind that *exposure flows through the channel of greatest hazard*, and should be figured in the way that produces the highest exposure charge. This may be determined in the manner pointed out in note under Example 17.

EXAMPLE NO. 17.

(Elective Exposures.)

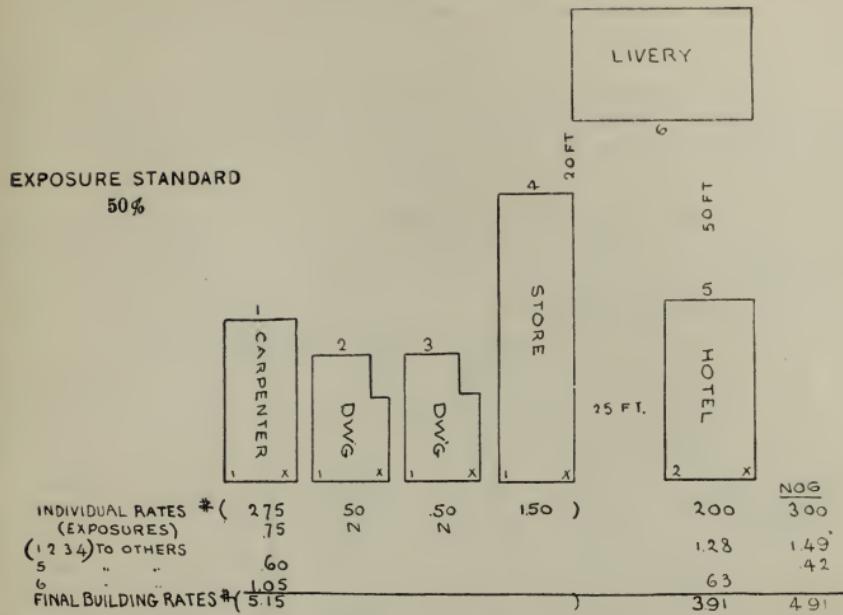


No. 1 exposes No. 5 direct at 35 ft. It also exposes No. 5 through Nos. 2, 3 and 4. The exposure should be figured through these buildings, in preference to charging direct exposure across the 35 ft. space, because it produces a larger charge. For the same reason, the exposure of No. 2 should be carried through Nos. 3 and 4 instead of being figured direct across the 25 ft. space to No. 5. The exposure of No. 5 to 1 and 2, for the same reason, should be carried through (3, 4) and 2 instead of being figured direct.

NOTE: It is easy to determine the channel of greater hazard by multiplying the space-ratios. In above example the ratio for 35 ft. space is .4, while the two 20 ft. and one 15 ft. space-ratios are respectively  $.7 \times .7 \times .9 = .441$ .

EXAMPLE NO. 18.

Elective Exposures.



The rule of elective exposures requires that the exposure from group (1, 2, 3, 4) be charged direct to 5 and 6, and that the mutual exposures of 5 and 6 be figured through the group instead of direct, each to the other. Thus, the exposure of 6 to group is reduced for 20 ft. space, making \$1.05, and this amount reduced for 25 ft. space to 5, the exposure radiated by 5 being in the same manner successively reduced for 25 and 20 ft. spaces.

The two dwellings, negligible as exposures, take the rate of the other buildings in group.

### ABNORMAL EXPOSURES.

a. The exposure tables, pages 6 and 8, provide for ordinary or normal exposures. Abnormal exposures may be graded as *Nil*, *Negligible*, *Small* and *Large*, which may be defined as follows:

*Nil* indicates structures so small that they may be ignored both as to the exposure they radiate and transmit.

*Negligible* indicates risks so small or of such low hazard that their radiated exposure may be ignored, though they should be recognized as transmitting exposure between other buildings.

*Small* and *Large* indicate buildings which, according to their size, radiate either more or less exposure than ordinary mercantile or light industrial buildings, as found in the business districts of towns and cities.

NOTE: As to what constitutes a large, small or negligible exposure the discretion of rater must to a large extent determine, as a small risk of high hazard often constitutes as great an exposure as a larger risk of low hazard. Again, with brick buildings the number and location of facing openings should be considered. Under existing usage all churches and schools may be treated as normal, and all dwellings and their outbuildings and small office buildings as negligible.

b. The following table refers to buildings with about the average hazard of the usual mercantile and light industrial occupancies found in the business districts of towns and cities. When a building contains a high special hazard occupancy (say, a wood-worker or a starred risk), the dimensions named for large should be reduced one-half.

c. The dimensions in the following table may be increased one-half and used to grade solid frame rows in fifth and sixth class towns. The highest building in the row should determine the height of the row.

TABLE.

Containing estimates of dimensions of *large*, *small* and *negligible* buildings.

		GRADES OF PROTECTION.			
		Class 1, 2 and 3.		Class 4, 4½, 5 and 6.	
		Stories.	Gd. fl. area.	Stories.	Gd. fl. area.
Frames, iron-clad and brick-veneered:	Large..	1	8000	1	5000
	" ..	2	5000	2	3000
	Small..	3 or over	All bldgs.	3 or over	All bldgs.
		1	1000	1	750
Bricks:	" ..	2	400	.....	.....
	Negligible..	1	400	1	300
	Bricks:	Large..	1	12000	1
		" ..	2	8000	2
		" ..	3	5000	3
		Small..	4 or over	All bldgs.	All bldgs.
			1	1000	750
	Negligible..	2	500	.....	.....
		1	500	1	400

Note: The above table refers only to radiated exposure. All buildings absorb exposure as normal.

*Abnormal Buildings.*

In figuring the radiated exposure of these buildings proceed as follows:

a. *Small*—Refer to General Exposure Table and lower the decimal and the denominator of the fraction, showing reduction for space, each one point, i. e., if the decimal is, say, .3, and the fraction beneath  $\frac{1}{3}$ , change to .2 and  $\frac{1}{2}$ , and figure out the result as for ordinary exposures.

b. *Large*—Raise the decimal and the denominator of its fraction in General Exposure Tables two points increasing each again one point for each additional story in excess of the smallest number of stories, which would grade building as large regardless of area, until the decimal and its denominator reach ten.

As large exposures are nearly always from either frame or brick buildings, the following table will be found convenient for reference:

TABLE.

c. Showing ratio of standard and space reductions for large radiated exposure.

Stories	Brick Exposing Brick	Brick Exposing Frame	Frame Exposing Brick	Frame Exposing Frame	
				Class 1, 2 & 3	Class 4, 4½, 5 & 6
2	.4 $\frac{1}{4}$	.5 $\frac{1}{4}$	.6 $\frac{1}{6}$	A11 $\frac{1}{7}$	See Frame Table
3	.4 $\frac{1}{4}$	.5 $\frac{1}{4}$	.6 $\frac{1}{6}$	A11 $\frac{1}{7}$	
4	.4 $\frac{1}{4}$	.5 $\frac{1}{4}$	.7 $\frac{1}{7}$	A11 $\frac{1}{8}$	
5	.5 $\frac{1}{5}$	.6 $\frac{1}{5}$	.8 $\frac{1}{8}$	A11 $\frac{1}{9}$	
6	.6 $\frac{1}{6}$	.7 $\frac{1}{6}$			
7	.7 $\frac{1}{7}$	.8 $\frac{1}{7}$			
8	.8 $\frac{1}{8}$	.9 $\frac{1}{8}$			
9	.9 $\frac{1}{9}$	A11 $\frac{1}{9}$			
10	A11 $\frac{1}{10}$	A11 $\frac{1}{10}$			
11	A11 $\frac{1}{10}$	A11 $\frac{1}{10}$			

NOTE 1: When window surface of facing wall of B. 1 buildings exceeds one-half of wall area the exposure established by preceding Table should be increased 30% for three-story buildings, 40% for four-story, 50% for five-story, and so on, increasing ten points for each additional story. The maximum charge, however, should not exceed the standard ratio—in other words should not exceed the exposure that would be radiated if the decimal and its denominator equalled ten.

NOTE 2: Wire-glass may be waived for ground floor of B. buildings as to their radiated exposure to other B. buildings, 40 feet or more distant.

Fire shutters and (or) wire-glass may be waived for ground floor of B. buildings as to their absorbed exposure from other B. buildings 40 feet or more distant.

NOTE 3: The absorbed exposure of B. 1 buildings with solid wall or protected openings from other B. buildings vanishes at 20 feet. (See Note 2, pages 6 and 8.)

*Abnormal Frame Exposures.*  
(In Towns of Grade 4, 4½, 5 or 6.)

**NOTE:** In the preceding rules for Abnormal Exposures from brick buildings the ratio of Exposure Standard in General Exposure Table is raised or lowered for Large or Small, as well as the fraction showing reduction for space. Consistency would seem to demand that in figuring abnormal exposures from frame buildings, the standard should be modified in like manner as well as the ratios showing space reductions. A careful examination of existing tariffs, however, fails to show that this feature in frame exposures has ever been taken into account, and to do so would make some drastic changes in existing rates. It would doubtless be impracticable to raise the standard for "Large," and it is questionable whether it should be lowered for "Small." Abnormally small frame mercantile and special hazard buildings as a rule have small insurable values and transitory tenants of doubtful commercial standing with low grade custom. These buildings doubtless shelter far more than their share of moral hazard; they are usually crowded and faulty in their lighting and heating arrangements and altogether may be regarded as making up in hazard what they lack in size. For these reasons the exposure of these risks is figured as normal, so far as the standard of radiated exposure is concerned, but the Frame Exposure Table, page 7, provides a scale of space reductions for small which makes a reasonable concession when these buildings are separated from the buildings they expose by space.

In figuring the radiated exposures of large and small frames proceed as follows:

*a. Solid Rows:* In these rows add to the nuclear rate the standard ratio of the total rate of the other buildings in the row the same as in rating ordinary frame rows.

*b. Open Rows:* Proceed as for ordinary open frame rows, making reductions for space as directed in Frame Exposure Table, page 7.

**NOTE:** In figuring open rows it should be borne in mind that a frame building transmits the same kind of exposure it radiates, i. e., if large, all exposure it transmits to buildings beyond it should be figured as Large, or if small, it transmits small exposure. These buildings, however, absorb the same exposure as other like buildings. (See Frame Exposure Table.)

*Negligible Exposures.*

Embracing dwellings and their outbuildings, small office buildings and other buildings of abnormally low hazard or small size.

The radiated exposure of negligible buildings may be ignored, but they transmit exposure between other buildings.

*a. In solid frame rows:* these buildings should be left out of the computation of exposures, but should themselves take the rate of other buildings in the row. The exposure load of the contents of a negligible building, however, should be figured upon the difference between its Individual Rate and its Final Rate.

*b. In open frame rows:* treat a negligible building as part of the building it adjoins in measuring space, giving it same rate. If separated by a space on both sides, it does not radiate exposure, but absorbs the same exposure as other buildings, and transmits exposure as "small" (see preceding note). Its exposure load should be added to its individual rate, and the exposure load of its contents found as directed in preceding section.

*c. In open rows:* a negligible building should not take a rate higher than the nearest building in direction from which it receives the largest exposure, unless this building is itself negligible.

EXAMPLE No. 19.  
Negligible exposures.

EXPOSURE STANDARD	1	2	3	4	5	6
50%						
INDIVIDUAL RATES (EXPOSURES)	(.150	X	N	.150 )	.75	
(14 6) OTHERS NEGIGIBLE						
(13)						
5				.22		
FINAL RATES BUILDINGS (				2.47 )	193	( 1.92 )

The office No. 2 and dwelling No. 6 take the same rate as mercantile buildings which they adjoin, and in rating contents their exposure load is the difference between their Individual and Final Rate.

Building No. 4 adds no exposure to other buildings in itself, but absorbs exposure regularly, and transmits exposure as "small".

#### DWELLING EXPOSURES.

The dwelling class is so largely competitive that it is as impossible to establish rules of exposure that will be generally acceptable as it would be to establish a uniform basis schedule for dwellings. In some Southern States dwellings have produced results so unfavorable that regular dwelling schedules and exposure rules are in use, but in many Northern States competition has abolished basis schedules and all rules for exposures.

In the preceding formulas, the exposure from dwellings has been treated as negligible to conform to usage in states where any other course is negatived by competition. This should not be construed, however, as a waiver of dwelling exposure in states where it has been the practice to take it into account, and there is nothing to prevent raters from utilizing the General Exposure Table for this purpose. It is proper, however, to call attention to the fact that, while dwellings absorb as much exposure as other risks, there is a marked difference in the exposure they radiate. Owing to constant human presence, the number of dwelling fires extinguished in their incipiency is much greater than with mercantile and manufacturing risks. Exposure hazard comes entirely from fires that escape from the buildings in which they originate and if a standard of radiated exposure is established as a ratio of the hazard of the individual risk, it is evident that this standard should be reduced for dwellings in proportion to the greater number of fires extinguished in this class before they break the boundaries of the building in which they originate. If the General Exposure Table is used for dwellings the standard of radiated exposure may be reduced at discretion. Some raters have obtained satisfactory results by treating all exposures radiated or transmitted by dwellings as "small."

These remarks are purely suggestive, and as this is a mercantile tariff only, raters are at liberty to apply such rules to dwelling exposures as their judgment or existing usage may dictate.

### STEEL BUILDINGS.

These risks usually have a large amount of exposed window surface, but differ from ordinary *B* buildings in the fact that their interior construction does not contribute to combustion; hence their radiated exposure is determined by their contents. The rates of steel buildings are so low that their radiated exposure is unimportant, especially when occupied as office buildings. When they are occupied for mercantile or manufacturing purposes and contain large amounts of combustibles, as with Department Stores, etc., it is proper to charge normal radiated exposure as from ordinary *B* 1 buildings. Exposure from Office buildings may be waived.

As to absorbed exposure, the buildings themselves appear to be as liable to exterior damage as ordinary *B* 1 buildings, though the probability of fire spreading through the interior is largely determined by the amount and combustibility of contents. In cities, these buildings often tower above blocks of ordinary *B* buildings, which radiate exposure through their roofs (see Section *d*, page 27) against a facing wall consisting almost entirely of window surface. There seems to be no escape from the conclusion that these buildings absorb the same exposure from adjoining roofs as ordinary *B* buildings of like construction, though, as stated, the liability of fire to spread inside is determined by the contents and non-combustible partitions.

At present, competition precludes the application of any fixed rule and the whole matter is necessarily left to judgment. A charge for absorbed exposure, under the rules for buildings of unequal height, would seem to be proper for all buildings of this class, occupied for mercantile or manufacturing purposes, where large quantities of combustibles are found. For office buildings or buildings where the contents grade as *C* 1, the absorbed exposure might be reduced one-half

### SPRINKLERED RISKS.

Standard sprinklered risks are usually rated so low that their radiated exposure would be unimportant even if charged by the scale used for ordinary risks, but the loss ratio which justifies the low rates for these risks is caused by an unusual proportion of small fires, which do not escape from the building; hence their radiated exposure seems to be reduced by an even greater ratio than their internal hazard. In view of these facts, the radiated exposure from bricks may, as a rule, be waived and for frames, a reduction of one-half seems to be no more than proper.

As to absorbed exposure, it is evident that sprinklers are a greater protection against internal combustion than against exposure. In fact, sprinklers do not protect against damage to exterior of building itself, and a heavy frame exposure is liable to overcome sprinkler protection. At present, competition precludes the application of careful schedule rating to these risks, though the following points are suggested:

1st. When a sprinklered risk has an exposed fire wall, it is as liable to wall damage as ordinary risks.

2nd. When the exposed wall has unprotected openings, one-half the usual exposure charge to building of like construction should be made as a minimum and increased to say two-thirds for heavy frame exposure.

3rd. When a frame sprinklered risk is exposed, charge two-thirds of ordinary charge for like exposure and increase to full charge for heavy frame exposure.

#### CENTERS AND AREAS OF COMBUSTION.

Small outhouses, sheds and private barns, usually found in back yards and along alley-ways *in rear of frame rows*, while they may be considered negligible as to their own exposure to other hazards, frequently constitute important media in the spread of fire. The number and irregularity of spaces found among these structures render it impracticable to calculate exposures by clear spaces as with frame rows, though it is often essential to an intelligent rating of other buildings that these congeries of small structures be taken into account in calculating exposures.

It is recommended in such cases that the rater on the ground or map-maker, establish by judgment and note on map, a point which may be considered the probable center of combustion of such buildings, in order that in computing exposures, clear spaces may be figured to and from the nearest approach of exposed and exposing buildings or rows to this imaginary point.

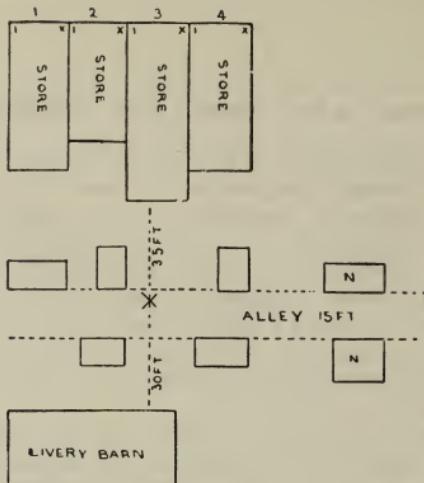
When the outhouses are so small as to be negligible individually, the center of combustion may be designated by a cross, but when one or more are of considerable size (say 200 square feet or more in area) the center of probable combustion should be designated by an area in the same manner as directed for Lumber Yards.

When the point or area has been so established exposures may be figured regularly, deducting for space to combustion center (or area) and again for space from this to exposed risk, treating the latter space as for "small" exposures.

In establishing centers or areas of probable combustion, as above suggested, it is necessary to include only the outhouses which judgment would suggest as being near enough to the path of probable combustion between the nearest exposing buildings, to be considered material to the computation.

*Diagram.*

Showing method of figuring exposures through centers of combustion.



The exposure of the frame row to the livery barn is figured from half the sum of the Individual Rates, this amount is reduced for 35 feet space to the center of combustion X, and the result again reduced for 30 feet space between X and the livery barn.

The exposure radiated by the barn is reduced for 30 feet space to X, and again reduced for 35 feet space between X and the nearest building in the row.

The two outhouses marked "N" are nil, because outside the path of probable combustion, hence are not to be considered in establishing the location of X.

When the outhouses are of considerable size the center of combustion should be designated by an area instead of a cross, and exposures figured to and from this area, as with dwelling No. 4 in Example No. 19.

#### RETAIL LUMBER YARD EXPOSURES.

These risks in small towns usually consist of scattered piles of lumber separated by considerable spaces, interspersed with buildings consisting of sheds, office, lime-house, and sometimes carpenter shop, paint house, agricultural implement house, stables, etc., etc. Sometimes the yard is all under a single roof or is so compact as to constitute practically a solid mass of combustible material. In such cases exposure should be figured as if the entire yard were an exposing or exposed building of like area and rate.

When the yard consists of scattered material and buildings, the rater or map-maker should designate, to the best of his judgment, on map, an area of combustion (which would be the equivalent in exposure of a frame building of like dimensions and rate). The size and location of this area necessarily depend upon judgment, guided by the relative density of the piled lumber and buildings in the yard.

Distances between the nearest approach of this imaginary area to the nearest buildings on either side should be noted on d

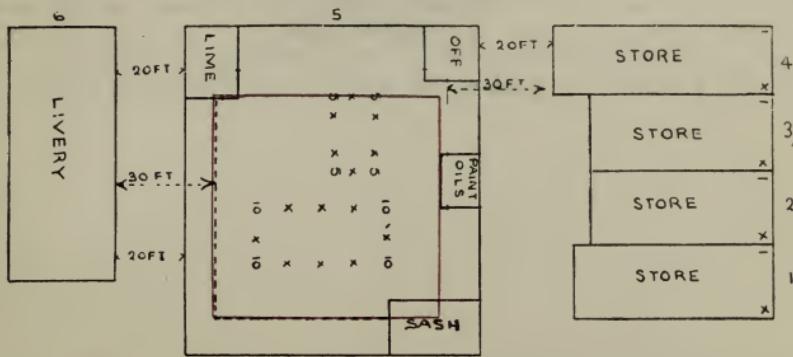
diagram and exposures figured as if this area were a single frame building bearing the rate of the Lumber Yard.

In diagraming lumber yards the location of the piles of lumber may be designated by a series of X's with figures at the corners, showing average height of piles.

This will be best understood after an inspection of the following diagram:

EXAMPLE No. 20.

Showing method of figuring lumber yard exposure by means of area of probable combustion.



ESTIMATE OF EXPOSURES

EXPOSURE

STANDARD

50%

INDIVIDUAL RATES #	1	2	3	4	5	6	(EXPOSURES)
	150	150	150	150	100	300	225
(234) TO OTHERS					150	75	
5	..	..	..	.25			
6	..	..	..	.38	.75		
FINAL RATES BUILDINGS/YARD				# 4.38	3.25	4.00	

NOTE: The red line in Lumber Yard encloses estimated area of probable combustion, with 30 feet of clear space on either side.

STOP RATES.

It has been customary to establish a stop rate in each state for frame rows.

It is suggested that when these are printed in local tariffs, an explanatory note should state the actual rate as figured by tariff, as information for the companies. When the total hazard is largely in excess of the stop rate, a carefully figured estimate is, of course, not essential, as the only object is to let the companies know about how much of a concession they make in accepting the business at the stop rate.

There seems to be no established usage as to the stop rate of contents as compared with that of building and, in order to bring about uniform practice, it is further suggested that the excess of the stop rate over the individual rate of each building should be treated as an exposure load and the ratio of this load, as shown by Contents Table, page 9, be applied to find the stop rate of contents.

There is an apparent necessity for a stop rate for brick buildings and contents heavily exposed by frames, as, without this, the local tariff will sometimes establish a higher rate for such risks than for adjoining frames.

It is suggested that the maximum rate of brick buildings in such cases be limited to 60 per cent. of the stop rate of frames in same field.

**CHANGING ESTABLISHED RATES FOR CHANGES IN EXPOSURES.**

When rates have been once established, the change in occupancy of an exposing building need not be allowed to disturb the rate of exposed building or its occupancy unless the change would cause a change in rate of 5 cents in exposed frame, I. C. or B. V. building, or 3 cents in exposed brick building. This does not of course apply in the event of a regular rerating of the block or city where risk is located.

#### WARE-ROOMS OR ADDITIONS AND THEIR EXPOSURES.

In small towns, few hazards are more common or more complicated than those found among brick or stone buildings with mutually exposing frame, iron-clad or brick-veneered ware-rooms.

Existing tariffs are either silent upon the subject or the rules they contain are so crude as to be worthless in actual rating. The importance of the subject demands an attempt, at least, to establish some uniform and practical system of dealing with the ware-room problem, which without doubt presents the most difficult phase of fire rating.

In Brick Tariff the following charges for ware-rooms appear:

#### WARE-ROOMS.

(Communicating.)

11a. Charge for ware-room or addition communicating (not cut off) with main building by a *percentage charge of basis rate of main building* determined by the percentage relation which the floor area of ware-room bears to the combined floor area of main building and ware-room excluding basement, if any. When main building and (or) ware-room exceed one story in height the ground floor area should be increased by one-third the area of each additional story. This percentage should be increased or decreased, according to the construction of main building and ware-room, by the following percentages of itself (not exceeding the maximum charge, and not less than the minimum charge):

Construction of Main Building.	Construction of Ware-room.	Amount of Increase or Decrease.	Maxi- mum Charge.	Mini- mum Charge.
Brick.....	{ Frame or iron-clad..... Brick-veneered..... Skeleton iron-clad..... Hollow-cement-block or tile..	Increase..60% Increase..40% Increase..20% Decrease..40%	70% 60% 50% 25%	10% 5% 5% 0%
Hollow- cement-block or tile.....	{ Frame, iron-clad or brick- veneered..... Skeleton iron-clad.....	Increase..20% No change	50% 40%	5% 5%

11b. Charge for roof or ware-room not approved (i. e., shingle or composition not approved by the Underwriters' Laboratories, Inc.), provided roof of main building is approved, by a percentage charge of basis rate of main building, determined by the percentage relation which the roof area of ware-room bears to the combined roof area of main building and ware-room. This percentage should be reduced one-half and should not exceed 20%.

NOTE 1: Area, floorway openings, skylights, occupancy, etc., of ware-room should be charged as if in main building.

NOTE 2: If area of ware-room as figured above is more than 50% of combined area of main building and ware-room, treat entire risk as frame, iron-clad, etc., as the case may be.

NOTE 3: When more than one ware-room communicates with a building, the combined area of all should be used in figuring above charges.

NOTE 4: All communicating ware-rooms take same rate as main building.

NOTE 5: When area of communicating ware-room is 25% or more of combined area of main building and ware-room, reduce contents differential by such per cent of 2/3 of itself as the area of ware-room is of the combined area, not exceeding one-half ware-room charge.

NOTE 6: When ware-room is detached or cut off, or exposes or is exposed by other buildings with or without ware-rooms, see Ware-Rooms in Exposure Formulas.

The above charges provide a method of charging for ware-rooms communicating (not cut-off) with their own main building. When ware-rooms are cut off or detached from their own main building the hazard of the ware-room should be charged as exposure (see below).

NOTE: By "cut-off" is meant that the wall of main building facing or communicating with ware-room is provided with standard fire doors and shutters, and, if not at least one story higher than ware-room, that it is provided with a standard parapet.

#### WARE-ROOM EXPOSURES.

##### **Between Main Building and Ware-Room (Detached or Cut Off.)**

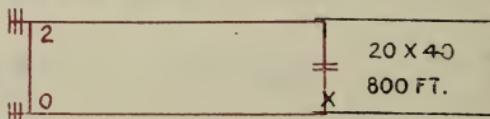
Ware-room should be rated specifically and exposures between main building and ware-room charged by General Exposure Formulas (including Wall Damage), with the following exceptions:

1. Reduce charges one-third.
2. Exposure charge from ware-room to main building should in no case exceed 80% of the charge which ware-room would add to main building communicating (not cut off).

##### Explanatory Diagrams.

In the following examples the fire protection is assumed as that of a 4½ class town, with a basis rate of 54 cents for a 2-story brick building and 86 cents for a 1-story frame building.

*Diagram 1.*

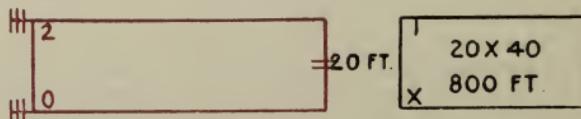


Main building area is 1200 square feet; add 1/3 of 1200 for second floor area, equals 1600. Ware-room area is 800 square feet. Combined area of main building and ware-room is 2400. Ware-room area is therefore 33 1/3% of combined area; 60% of 33 1/3% equals 20% which added to 33 1/3% equals 53%, which is the ware-room charge. 53% of .54 equals .29.

The shingle roof on ware-room is charged as follows:

Combined roof area is 1200 plus 800 equals 2000. Ware-room roof area is 800, which is 40% of the combined area. 40% divided by 2 equals 20%, which is the ware-room roof charge. 20% of .54 equals .11. Total charge for ware-room and roof is .29 plus .11 equals .40.

*Diagram 2.*



In this case ware-room should first be rated specifically.

Basis rate ..... .86

No foundation ..... 8%

Occupancy ..... 40%

$\frac{48\%}{48\%} \quad .41$

$\frac{1.27}{1.27}$

No heat, credit ..... 5% .06

$\frac{1.21}{1.21}$

Ware-room exposure to main building is  $1.21 \times 33 \frac{1}{3} \% = .40$ .  
 $.40 \times .4$  (Frame to B. No. 1) = .16, less  $\frac{2}{4}$  (20 feet space) = .8, less  $\frac{1}{3} = .05$ .

Diagram 3.

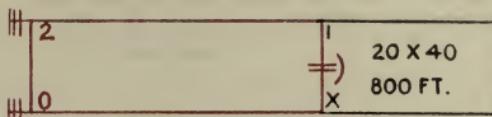
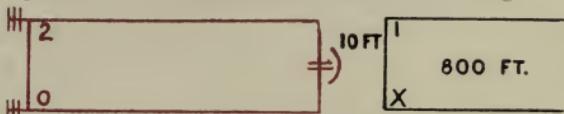


Figure ware-room charge as wall damage.

$1.21 - .86 = .35$ ; 10% of .35 = .036; 5% of .35 = .017; .086 + .017 = .10; 80% of .10 = .08, less  $\frac{1}{3} = .05$ .

NOTE: Above charge does not include communication charge.

Diagram 4.



Same as Diagram 3, except that charge reduced  $\frac{1}{2}$  for 10 feet space equals .03.

#### Main Building and Ware-Room to Other Buildings.

Ware-room communicating (not cut off). Figure exposure from individual rate of main building including ware-room charge. Charge as from main building and reduce for space as from ware-room. When a greater charge would result, the reduction for space should be made as from main building.

NOTE 1: In extreme cases when ware-room is unusually large, the entire exposure should be figured as from ware-room instead of main building, using the same individual rate as above.

NOTE 2: When ware-room exposes another building as wall damage, charge should be figured by regular rules for wall damage, using the same individual rate as above.

Ware-room detached or cut off. Figure exposure from main building and ware-room as separate risks, making the higher charge in full and adding one-third of the lower. Such exposure should in no case exceed 80% of the charge which would be made from main building and ware-room communicating (not cut off).

NOTE 1: This maximum should not apply to exposure radiated to other ware-rooms.

NOTE 2: When exposure is radiated by either main building or ware-room alone, one-half of the exposure absorbed by the main building or ware-room from the other should be transmitted to other buildings. In extreme cases when the full transmitted exposure gives the larger charge, cumulate one-half of the direct (smaller) with the full transmitted exposure.

#### Other Buildings to Main Building and Ware-Room.

Ware-room communicating (not cut off). Figure exposure as to main building and reduce for space as to ware-room. When a greater charge would result, the reduction for space should be made as to main building.

NOTE: In extreme cases when the ware-room is unusually large, the entire exposure should be figured as to ware-room instead of main building.

#### Explanatory Diagrams.

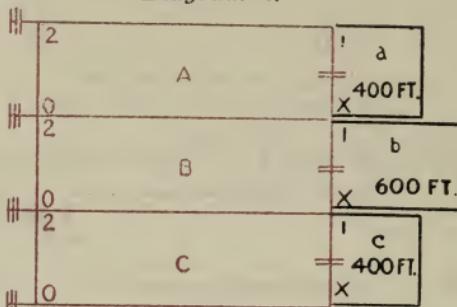
(Showing Ware-Room Exposures.)

NOTE: In all the following diagrams each main building and its ware-room will, for convenience of reference, be designated by the same letter—capital for main building and small letter for ware-room. When necessary to refer to either separately its letter will be used, while the entire building composed of both will be designated by both capital and small letter.

The basis rate in all examples is 54 cents, with an assumed occupancy charge of 11 cents, making the individual rate of main building, without the charge of its ware-room, 65 cents.

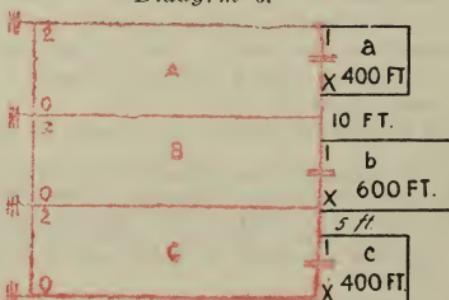
All calculations are made as of  $4\frac{1}{2}$  class of municipal protection, with standard of radiated exposure 33  $\frac{1}{3}\%$ .

Diagram 5.



	A	B	C
Main building .....			
Occupied rate without ware-room charge.....	.65	.65	.65
Ware-room charge .....	.17	.23	.17
Ware-room roof charge.....	.07	.09	.07
Occupied rate including ware-room charge.....	.89	.97	.89
Exposures:			
Aa to others. .89x33 $\frac{1}{3}\%$ equals .30x.2 (B. 1 to B. 1) equals .06.....		.06	.06
Bb to others. .97x33 $\frac{1}{3}\%$ equals .32x.2 (B. 1 to B. 1) equals .06.....	.06		.06
Cc to others. Same as Aa.....	.06	.06	
	\$1.01	\$1.09	\$1.01

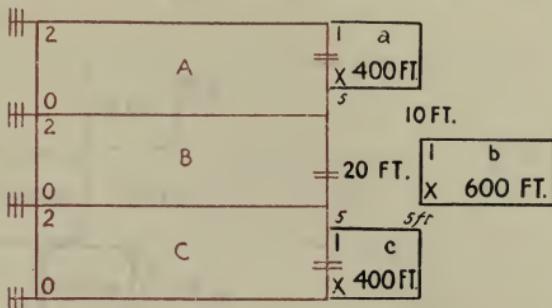
Diagram 6.



	A	B	C
Main building .....			
Occupied rate including ware-room charge.....	.89	.97	.89
Exposures:			
Aa to others: .89 x 33 $\frac{1}{3}\%$ equals .30 x .2 (B. 1 to B. 1). >equals .06.....			
.06 x .9 (10 feet, frame to frame, small) equals .05.....	.05	.05	
Bb to others. .97 x 33 $\frac{1}{3}\%$ equals .32 x .2 (B. 1 to B. 1) equals .06.....			.06
.06 x .9 (10 feet, frame to frame, small) equals .05.....	.05		
Cc to others. .89 x 33 $\frac{1}{3}\%$ equals .30 x .2 (B. 1 to B. 1) >equals .06.....			.06
.06 x .9 (10 feet, frame to frame, small) equals .05.....	.05		
	\$0.99	\$1.08	\$1.00

Diagram 7.

Same buildings as preceding diagrams, with middle ware-room 20 ft. distant.

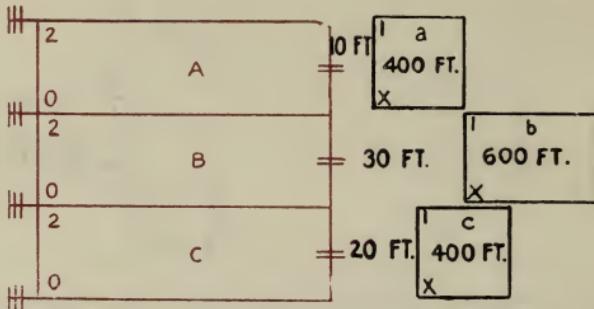


**NOTE:** In this diagram, exposures should be figured between **Aa**, **B**, **b** and **Cc** as separate risks, with the special provisions given in the above rules for Ware-room Exposures.

	<b>Aa</b>	<b>B</b>	<b>b</b>	<b>Cc</b>
Occupied rate including ware-room charge.....	.89			.89
Occupied rate without ware-room charge.....			.65	
Occupied rate of <b>b</b> as a separate risk (same as ware-room in Diagram 2).....			1.21	
<b>Exposures:</b>				
<b>Aa</b> to others. $.89 \times 33\frac{1}{3}\%$ equals $.30 \times .2$ (B. 1 to B. 1) equals $.06 \times \frac{1}{2}$ (Diagonal) equals .03....		.03		
$.30 \times .3$ (B. 1 to frame) equals $.09 \times .9$ (10 feet, frame to frame, small) equals .08.....			.08	
$.30 \times .2$ (B. 1 to B. 1) equals $.06 \times .9$ (10 feet, frame to frame, small) equals .05.....				.05
<b>b</b> to others. $1.21 \times 33\frac{1}{3}\%$ equals $.40 \times .3$ (frame to B. 1, small) equals .12 to <b>Cc</b> . Limit of exposure from <b>b</b> and <b>B</b> is .05 (80% of .06, see Diagram 5). ....				.05
$.12 \times .9$ (10 feet, frame to frame, small) equals .11 to <b>Aa</b> . Limit from <b>b</b> and <b>B</b> is .04 (80% of .05, see Diagram 5).....		.04		
$.12 \times \frac{1}{2}$ (diagonal) equals .06 less $\frac{1}{2}$ (same occupancy) equals .04.....			.04	
<b>B</b> to others. $.65 \times 33\frac{1}{3}\%$ equals $.22 \times .2$ (B. 1 to B. 1) equals $.04 \times \frac{1}{2}$ (in addition to exposure from <b>b</b> ) equals .01 to both <b>Aa</b> and <b>Cc</b> . No charge as limit of exposure from <b>B</b> and <b>b</b> already charged.				
$.22 \times .3$ (B. 1 to frame) equals .07 less $\frac{1}{2}$ (same occupancy) equals .05.....				.05
<b>Cc</b> to others. $.89 \times 33\frac{1}{3}\%$ equals $.30 \times .2$ (B. 1 to B. 1) equals $.06 \times \frac{1}{2}$ (diagonal) equals .03			.03	
$.06 \times .9$ (10 feet, frame to frame, small) equals .05 .....			.05	
$.30 \times .3$ (B. 1 to frame) equals .09.....				.09
	\$0.98	\$0.75	\$1.43	\$0.99

Diagram 8.

Same as preceding, with ware-rooms all separated from main building by different spaces.



A	B	C	O	a	b	c
---	---	---	---	---	---	---

Individual rate.....	.65	.65	.65	(1.21)	1.21	1.21
----------------------	-----	-----	-----	--------	------	------

**Exposures:**

A to others.  $.65 \times 33\frac{1}{3}\% = .22 \times .3$   
 (B.1 to frame) equals  $.07 \times \frac{1}{3}$  (10 feet) equals .03..... .03

B to others. Same as A..... .03

C to others. Vanishes.

a to main buildings.  $1.21 \times 33\frac{1}{3}\% = .40 \times .3$  (frame to B.1, small) equals  
 $.12$  minus  $\frac{1}{3}$  (10 feet, small) equals  
 $.08$  less  $\frac{1}{3}$  (same occupancy) equals  
.05..... .05  
 $.08 \times \frac{1}{3}$  (diagonal) equals .04..... .04

.12 less  $\frac{1}{3}$  (20 feet, small) equals .04..... .04

b to main buildings.  $1.21 \times 33\frac{1}{3}\% = .40 \times .3$  (frame to B.1, small) equals  
 $.12$  minus  $\frac{1}{3}$  (10 feet, small) equals  
 $.08$  to A. Limit of exposure from b and B is .05 (same as in Diagram 7)..... .05

$.08 \times \frac{1}{3}$  (diagonal) equals .04 less  $\frac{1}{3}$  (same occupancy) equals .03..... .03

.12 less  $\frac{1}{3}$  (20 feet, small) equals .04..... .04

c to main buildings.  $1.21 \times 33\frac{1}{3}\% = .40 \times .3$  (frame to B.1, small) equals  
 $.12$  less  $\frac{1}{3}$  (10 feet, small) equals .08 to A. Limit is .05..... .05

$.08 \times \frac{1}{3}$  (diagonal) equals .04..... .04

.12 less  $\frac{1}{3}$  (20 feet, small) equals .04 less  $\frac{1}{3}$  (same occupancy) equals .03..... .03

a, b and c to each other. Rate as solid frame row, making one negligible account small area of all three.  
 $1.21 \times 33\frac{1}{3}\% = .40$ ..... .40

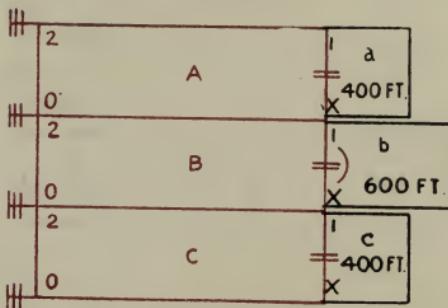
---

1.67

\$0.80	\$0.76	\$0.76	\$1.67	\$1.67	\$1.67
--------	--------	--------	--------	--------	--------

Diagram 9.

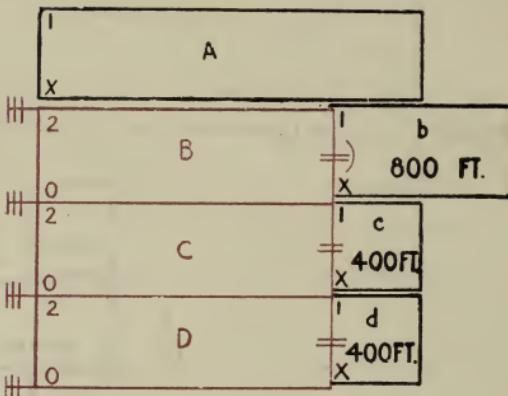
Same as Diagram No. 5, except that ware-room *b* is cut-off from *B*.



	Aa	B	<i>b</i>	Cc	
Individual rate, same as Diagram 7.....	.89	.65	1.21	.89	
<b>Exposures:</b>					
Aa to others. .89x33½% equals .30x.3 (B.1 to frame) equals .09.....			.09		
.30x.2 (B.1 to B.1) equals .06.....				.06	
Cc to others. Same as Aa.....	.06		.09		
<i>b</i> to others. 1.21x33½% equals .40x.3 (frame to B.1, small) equals .12. Limit of exposure from <i>b</i> and B is .05 (same as in Diagram 7)	.05			.05	
Wall Damage to B. 1.21 plus .09 plus .09 equals 1.39; 1.39 minus .86 equals .53; 10% of .86 equals .086; 5% of .53 equals .027; .086 plus .027 equals .113; .113x80% equals .09 increased $\frac{1}{4}$ (protected opening) equals .11 less $\frac{1}{4}$ (small) equals .07 less $\frac{1}{4}$ (same occupancy) equals .05.....			.05		
B to others. None.		\$1.00	\$0.70	\$1.39	\$1.00

NOTE: Above figures do not include communication charges from B to *b*.

Diagram 10.



	A	b	B	Cc	Dd
Individual rate.....	1.35	1.21	.65	.89	.89
Exposures:					
A to others, $1.35 \times 33 \frac{1}{3}\% = .45$ .....	.45				
.45 $\times .4$ (frame to B, 1) equals .18.....				.18	.18
Wall Damage to B. 1.35 less .86 equals .49; 10% of .86 equals .086; 5% of .49 equals .025; .086 plus .025 equals .111; .111 $\times 80\%$ equals .09.....				.09	
Cc to others, $.89 \times 33 \frac{1}{3}\% = .30$ (B, 1 to B, 1) equals .06.....					.06
.30 $\times .3$ (B, 1 to frame) equals .09.....	.09	.09			
Dd to others. Same as Cc.....	.09	.09		.06	
b to others. $1.21 \times 33 \frac{1}{3}\% = .40$ to A. Limit of exposure from b and B is .08 (.65 plus .40 equals 1.05 $\times 33 \frac{1}{3}\% = .35$ (B, 1 to frame) equals .105 $\times 80\%$ equals .08).....			.08		
.40 $\times .4$ (frame to B, 1) equals .16 to Cc and Dd. Limit of exposure is .06 (.35 $\times .2$ (B, 1 to B, 1) equals .07 $\times 80\%$ equals .06)				.06	.06
Wall Damage to B. 1.21 plus .09 plus .09 equals 1.39; 1.39 less .86 equals .53; 10% of .86 equals .086; 5% of .53 equals .027; .086 plus .027 equals .113; .113 $\times 80\%$ equals .09 less $\frac{1}{3}$ (same occupancy) equals .06.....				.06	
B to others. None.					

\$1.61    \$1.84    \$0.80    \$1.19    \$1.19

NOTE: Above charges do not include communication charges between B and b.

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In the following Index the numbers in

Column *a* refer to Brick Tariff.  
 " *b* " Frame Tariff.  
 " *c* " Appendix.  
 " *d* " Exposure Formulas.

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**SUPPLEMENT**

TO THE

**ANALYTIC SYSTEM**

**1909 EDITION**

**APRIL, 1911**

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11549a  
sup

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## SUPPLEMENT

TO THE

# ANALYTIC SYSTEM, 1909 EDITION

APRIL, 1911

-1911.

### Section A. Page 10. List of Light Occupancies.

Insert:

4½. Cigar Factories (not over 5 hands.)

Change Note at end of List to read:

NOTE: When more than 3 occupancies described under items 9 and or) 13 with over 5 hands, and (or) under items 4½ and (or) 15 are found on same floor, these occupancies are to be treated as Ordinary occupancies

-1911.

### Section A. Page 11.

Item b. Change to read:

b. For party or division walls of buildings of both light and ordinary occupancy, both supporting and non-supporting, and for outside supporting walls of ordinary occupancy, the following standard applies (see heavy faced figures in table below): Wall of upper story to be 12 inches thick increasing 4 inches for each 2 stories below. Limit 28 inches.

When building is 5 stories or over, thickness of top story as specified under b. should be 16 inches instead of 12 inches.

NOTE: In the case of a supporting party or division wall, the top story, if common to both buildings, to be not less than 16 inches thick, and no story below, if common to both buildings, to be less than 20 inches thick. See charge 2b.

Item c. Strike out.

-1911.

### Section A. Page 12. Notes at top of page.

a. Strike out.

c. Change "one-fourth" to "one-fifth."

d. Change to read: Deficiency in thickness of piers and (or) wall between piers to be charged as for other walls. If width of faces of piers is deficient, increase total charge 2 points.

-1911.

### Section A. Page 13. Enclosed Elevators and Stairways.

Change Note under sub-item b. to read:

NOTE: Wooden enclosures are valid only for stairways and for elevators passing through not more than one floor. Elevators passing through more than one floor, with enclosures (a) and (b) should also have a trap door at each floorway and be graded by the trap door instead of by above enclosures (see Open Elevators, page 13). If no trap door, they should take the "below a" grade.



-1911.

**ection A. Page 14. Item (d) at top of page.**

Change to read:

(d) *Enclosure* brick shaft with standard automatic 2-inch tin-clad or No. 14 U. S. gauge iron or other standard "Stair or Elevator" doors.

---

-1911.

**ection A. Page 14. Item 3.**

Strike out words:

except that a wood lath and plaster partition, with self closing door & matched flooring from hallway to main room of first story may be treated as equivalent to floorway retinue a for that story."

---

-1911.

**ection A. Page 14. Note under b at bottom of page.**

Add:

Light shafts in hallways are considered as opening into hallway when all partitions of shaft are detached from hallway partitions or when those that are identical with hallway partitions are solid without openings. Openings through floorways in hallway, when not enclosed in partitions, are considered as opening into hallway in all cases.

---

-1911.

**ection A. Page 15.**

After heading "(To Rate Buildings of More Than One Occupancy)" insert:

(Class as one building all divisions not separated by fire wall through roof without openings or with openings, if any, protected by standard fire doors.)

---

-1911.

**ection A. Page 16. Item 3.**

Change to read:

3. *The number of stories in a building is determined by the number of floors above basement and not by the height of the building.*

---

-1911.

**ection A. Page 21. Item 2b.**

Change to read:

b. **Supporting party or division wall** less than 16 inches thick on top story common to both buildings, and (or) less than 20 inches thick on any story below which is common to both buildings, for each wall..... Add 4%  
NOTE: Double charge if less than 12 inches thick on any story common to both buildings.

---



-1911.  
Section A. Page 22. Item 3b.  
Change second paragraph to read:  
The change for mansard is not cumulative with 10 a, b, c or d. If both are on same side of building, make the higher charge only.

---

-1911.  
Section A. Page 22. Item 7. Floorway Retinue Table.  
Change credit for C Floorway with d retinue from 3% to 2%.

---

-1911.  
Section A. Page 24. Item 10m.  
Change paragraph to read:  
When two buildings not fire proof communicate through enclosed bridge without approved cut-off, treat as one building, waiving charges 10 k, l and m unless exposed by another building.

-1911.  
Section A. Page 25. Note 5.  
Change to read:  
NOTE 5: When area of communicating ware-room is 25% or more of combined area of main building and ware-room, reduce contents differential one-fourth. Such reduction should not exceed one-half ware-room charge.

---

-1911.  
Section A. Page 26. Item e.  
Strike out.

---

-1911.  
Section A. Page 27. Items 115 and 115½.  
Change to read:  
15 Artificial Flowers, Stocks. (See Feathers and Flowers.)  
Insert:  
15½ Artificial Flowers, Manufacturing..... 25% 40% D4  
1. Additional labor, power, heat, etc. (C 3½).

---

-1911.  
Section A. Page 27. Item 117½.  
Insert:  
17½ Asbestos Goods, Manufacturing..... 10% 10% D2  
1. Additional labor, power, etc. (C 2).

---



-1911.

ection A. Page 27. Item 118.

Insert sub-item 1:

1. Heat (C 2).
- 

-1911.

ection A. Page 28. Item 123. Sub-item 2.

Insert word "gasoline" before "automobiles" and also before "ma-  
hines."

Sub-item 3.

Insert word "gasoline" before "machines."

Insert sub-item 4:

4. If celluloid used in small quantities..... 50%
- 

-1911.

ection A. Page 28. Item 124.

Change to read:

24 Automobile Garages for storage and care of Auto-  
mobiles in use (Public):

- |    |   |      |     |    |
|----|---|------|-----|----|
| a. | Electric machines only (C 3½).....  | 20%  | 40% | D3 |
| b. | *Gasoline and electric machines:<br>1. Not over 5 machines (C 3½).....            | 80%  | 40% | D3 |
|    | 2. Over 5 machines (C 4).....   | 100% | 80% | D3 |
|    | (Garages containing space for more than 5<br>machines should be treated under 2.) |      |     |    |
|    | (For other charges see Automobile Stocks—<br>charges 1 to 8 inclusive.)           |      |     |    |

NOTE: Automobile garages, private or industrial,  
including brewery, mill, delivery and mer-  
cantile, should be treated same as Auto-  
mobile Stocks.

---

-1911.

ection A. Page 28. Item 125.

Change to read:

25 Automobiles in mercantile buildings:

- |    |  |     |    |
|----|--|-----|----|
| a. | Not over two gasoline machines, with war-<br>ranty that no charging or repairing of ma-<br>chines is done in building (no charge for not<br>over two electric machines)..... | 30% | D3 |
|----|--|-----|----|

Balance of item remains unchanged.

---

-1911.

ection A. Page 28. Item 125½.

Insert:

25½ Automobile Repair Shops:

- |    |   |     |     |    |
|----|---|-----|-----|----|
| a. | Not over 2 gasoline machines, see Machine<br>Shops.                     |     |     |    |
| b. | *Over 2 gasoline machines.....  | 40% | 80% | D3 |
|    | 1. Additional labor, power, heat, etc., with<br>b. (C 4).               |     |     |    |
|    | (For other charges see Automobile Stocks—<br>charges 2 to 8 inclusive.) |     |     |    |



4-1911.

**Section A. Page 28. Item 126.**

Change to read:

126 Automobile Stocks: Electric, Steam or Gasoline Machines .....	10%	20%	D3
(No gasoline on premises or in machines.)			

---

4-1911.

**Section A. Page 28. Item 127.**

Change to read:

127 *Automobile Stocks, Gasoline Machines, with gaso- line in machines only:	20%	40%	D3
a. Not over 5 gasoline machines.....	20%	40%	D3
b. Over 5 gasoline machines.....	40%	80%	D3
1. Labor (repairing), power, heat, etc., with a (C 3½), with b (C 4).			
2. If combustible floor in room where gasoline is handled or stored or where filled ma- chines are kept.....	20%		

Insert after sub-item 7b:

(Above charge may be waived for incandes-  
cent electric lights in fixed chandeliers,  
clusters or like devices attached to the  
ceiling. Not cumulative with 7a.)

Balance of item 127 remains the same.

---

4-1911.

**Section A. Page 30. Item 168½.**

168½ Blackboard Manufacturing.....	25%	40%	D2
1. Additional labor, power, heat, etc. (C 3½).			
2. Painting .....	50%		

If woodworking, see Woodworking.

---

4-1911.

**Section A. Page 31. Item 172.**

Change sub-item under Cooking to read:

For each stove, range or furnace over one  
used for cooking, increase above charge in  
column 1 one-fifth up to double the  
charge, counting each fire box in banks  
of ranges as one furnace. No additional  
charge should be made for small gas  
plates or griddles, gas or steam heated  
warming tables or urns.

If electricity or gas only is used for fuel  
in all heat devices, reduce total charge for  
cooking and additional devices one-half.

If heat devices on combustible floor not  
protected in a standard manner, double  
the net charge for cooking and additional  
devices.

If ventilating system from ranges not  
standard .....

30%

---

-1911.

**Section A. Page 32. Item 186½.**

86½ Bottle Stopper (wood pulp) Manufacturing.....	15%	20%	D2
1. Additional labor, power, heat, etc. (C 3).			



4-1911.

**Section A. Page 37. Item 272.**

Change heading to read:

272 **Clubs** (City)..... 10% 10% **D2**

Change sub-item under **Cooking** to read:

For each stove, range or furnace over one used for cooking, baking or laundering, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard ..... 30%

---

4-1911.

**Section A. Page 38. Item 280. Sub-item 10.**

Change to read:

10. Spice grinding:  
a. Not over one mill..... 30%  
b. Not over two mills..... 36%

(If over two mills see Spice Mills and charge for roasters and their arrangement as per Coffee Roasting Establishments.)

---

4-1911.

**Section A. Page 41. Item 322.**

Change to read:

322 Delicatessen, Delicacies and Condiments (no Cooking), see Groceries.

If with cooking, see Bakeries (retail).

---

4-1911.

**Section A. Page 42. Item 326.**

Change sub-item under **Cooking** to read:

For each stove, range or furnace over one used for cooking, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard ..... 30%

---



4-1911.

**Section A. Page 45. Item 387. Sub-item 3.**

Change "286" to "386."

---

4-1911.

**Section A. Page 48. Item 429.**

Change sub-item under **Cooking** to read:

For each stove, range, or furnace over one used for cooking, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard ..... 30%

---

4-1911.

**Section A. Page 48. Item 436.**

Change to read:

436 **General** Storage Warehouse should rate by stipulation with Warehouseman as follows:

- |  |          |
|--|----------|
| a. With Warehouseman's stipulation No. 1....                             | 5%       |
| b. With Warehouseman's stipulation No. 2....                             | 40%      |
| c. With Warehouseman's stipulation No. 3....                             | 20% 80%  |
| d.*† With no stipulation except printed policy conditions .....          | 40% 160% |
| 1. If open lights or fire outside office (except approved oil lanterns): |          |
| a. With stipulation No. 2.....   | 20%      |
| b. With stipulation No. 3.....   | 50%      |
| c. With no stipulation.....  | 100%     |
| 2. If no signs posted prohibiting smoking outside of office.....         | 20%      |

For stipulations and directions for figuring contents estimates, see "Listed Warehouses" Supplement.

---

4-1911.

**Section A. Page 49. Item 451.**

In **Sub-Items c and d**, change "D3" to "D2½."

Strike out paragraphs reading:

"If cigars and tobacco insured specifically," etc.  
"If policy form excludes cigars and tobacco," etc.

---



-1911.

Section A. Page 52. Item 474.

Change to read:

174	Hat Cleaning Shops.				
a.	Not over 5 hands.....	15%	D3		
b.	Over 5 hands.....	25%	40%	D3	
1.	Additional labor with b (C 3½).				
2.	Furnaces, dry rooms, etc., with a (C 3), with b (C 3½).				

Balance of item remains unchanged.

---

-1911.

Section A. Page 52. Item 480.

Change to read:

80*†	Hemp Warehouses (unhackled).....	40%	160%	D3
1.	Labor (hackling) (C 4½).			

-1911.

Section A. Page 52. Item 490.

Change sub-item under Cooking to read:

For each stove, range or furnace over one used for cooking, baking or laundering, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard ..... 30%

---

-1911.

Section A. Page 53. Item 492.

Change sub-item to read:

1. If stock of paints and oils, see Paints and Oils.
  2. If mixing by hand..... 30%
  3. If painting, see Paint Shops.
- 

-1911.

Section A. Page 53. Item 495.

Change to read:

- 195 Household Furniture Warehouses (for stored household goods), see General Storage Warehouses.
-



4-1911.  
Section A. Page 56. Items 562 and 563.  
Change to read:  
562 } Laundries (hand and steam)..... 10% 10% D2  
563 }  
1. Additional labor and heat (C 2).  
Balance of item remains unchanged.

---

4-1911.  
Section A. Page 58. Item 595.  
Sub-item 19: Insert word "gasoline" before "automobiles" and before "machines."  
Sub-item 20: Change to read:  
20. If automobile charging, see charges under Automobile Stocks.  
If over two gasoline machines, see Automobile Repair Shops.

---

4-1911.  
Section A. Page 61. Item 635.  
Change "D1½" to "D2."

---

4-1911.  
Section A. Page 65. Item 700.  
Strike out words "(no processes)." Change sub-item 2 to read:  
2. If mixing by hand or painting on premises.. 30%  
Insert sub-item 3:  
3. If over 15 barrels or if grinding or power mixing, see next item.

---

4-1911.  
Section A. Page 66. Item 714½.  
Insert:  
714½ Paper (Carbon or Manifold) Manufacturing..... 25% 40% D3½  
1. Additional labor, power, heat, etc. (C 3½).  
2. Grinding and (or) mixing..... 30%

---

4-1911.  
Section A. Page 66. Item 720½.  
720½ Paper Tablet Manufacturing (no printing or book-binding) ..... 15% 20% D3  
1. Additional labor, power, heat, etc. (C 3).

---



- 1-1911.  
Section A. Page 66. Item 723½.  
Insert:  
23½ Passepartout Picture Framing..... 15% 20% D3  
1. Additional labor (C 3).
- 
- 1-1911.  
Section A. Page 67. Item 737.  
Change to read:  
37 Phonograph Stocks..... 5% 10% D3½
- 
- 1-1911.  
Section A. Page 67. Item 739.  
Change to read:  
739 Photographers, Commercial..... 15% 20% D4  
1. Additional labor, power, heat, etc. (C 3).
- 
- 4-1911.  
Section A. Page 67. Item 741.  
Change to read:  
741 Photo-engraving Establishments, process work.... 25% 40% D4  
1. Additional labor, power, heat, etc. (C 3½).  
2. Add for wet plate work..... 30%  
If woodwork, see Woodworking.
- 
- 4-1911.  
Section A. Page 67. Item 750.  
Insert after sub-item a:  
(If not over 5 hands, rate under b.)
- 
- 4-1911.  
Section A. Page 68. Item 767.  
Change sub-items 1 and 2 to read:  
1. Additional labor, power, heat, etc. (C 3).  
2. If feather drying, add..... 20%
- 
- 4-1911.  
Section A. Page 69. Item 775.  
Insert sub-item 7:  
7. Add for wet plate work in photo-engraving.. 30%
- 
- 4-1911.  
Section A. Page 69. Item 776.  
Insert sub-item 7:  
7. Add for wet plate work in photo-engraving.. 30%



4-1911.

Section A. Page 71. Item 814.

Change sub-item under Cooking to read:

For each stove, range or furnace over one used for cooking, baking or laundering, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard ..... 30%

---

4-1911.

Section A. Page 73. Item 838.

Change sub-item under Cooking to read:

For each stove, range or furnace over one used for cooking, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard ..... 30%

---

4-1911.

Section A. Page 74. Item 852½.

Insert:

852½ Sheep Dip Manufacturing..... 25% 40% D2  
1. Additional labor, power, heat, etc. (C 3½).  
2. Power chopping and (or) grinding..... 30%  
3. Power mixing of dry materials..... 25%

---

4-1911.

Section A. Page 74. Item 853.

Change to read:

853 Shellac Varnish Making:

a. No naphtha used..... 25% 40% D2  
b. \*Naphtha used, not over one barrel..... 40% 80% D2  
1. Additional labor, power, heat, etc., with a (C 3½), with b (C 4).



4-1911.

**Section A. Page 75. Item 870.**

Change to read "Silk Goods, wholesale."

4-1911.

**Section A. Page 76. Item 888. Sub-item 3.**

Insert word "gasoline" before "automobiles" and also before "machines."

**Sub-item 4.**

Insert word "gasoline" before "machines."

4-1911.

**Section A. Page 76. Item 889.**

Change **Sub-item 1** to read:

1. For each additional 50 stalls or greater part thereof (maximum 60%) ..... 20%

**Sub-item 2.**

Insert word "gasoline" before "automobiles."

4-1911.

**Section A. Page 76. Item 890.**

Change **Sub-item 1** to read:

1. For each 50 additional stalls or greater part thereof (maximum 100%) ..... 20%

**Sub-item 2.**

Insert word "gasoline" before "automobile."

**Sub-items a and b.**

Insert word "gasoline" before "machines" in both *a* and *b*.

4-1911.

**Section A. Page 78. Item 943.**

Change "D3" to "D2½."

4-1911.

**Section A. Page 80. Item 985½.**

Insert:

985½ Vacuum Cleaner Stocks ..... 3% 5% D2½  
1. Repairing, not over 5 hands ..... 10%

4-1911.

**Section A. Page 80. Item 989.**

Strike out words "(no processes.)"

Change **sub-item 2** to read:

2. If mixing by hand or painting on premises. 30%

Insert **sub-item 3:**

3. If over 15 barrels or if grinding or power mixing, see next item.



-1911.

**Section A. Page 82. Item 1022.**

Change heading to read:

022 **Wire** Workers (no oils used).

Insert at end of item:

(If oils used see Machine Shops, with oils.)

---

-1911.

**Section A. Page 86. Structural Features.**

Change to read:

**Structural Features.**

The following credits are percentages of **Occupied Building Estimate** and should be deducted before giving credit for Protective Features:

- |  |            |
|--|------------|
| i. If all floorways and their supports class as D, with retinues <i>d</i> (see page 12) .....  | Deduct 10% |
| ii. If all floorways and their supports class as D, with retinues inferior to <i>d</i> , or if all floorways and their supports class as C with retinues of all grades (see page 12) ..... | Deduct 5%  |
| (1) If <b>roof boards</b> less than 2-inch plank, decrease credit <i>a</i> three points and credit <i>b</i> one point, and allow no credit on a one story building without basement.       |            |
| (2) If <b>roof boards</b> less than standard but not less than 2-inch plank and (or) roof timbers less than 6x6 inches, decrease credit <i>a</i> one point (not cumulative with (1)).      |            |
| (3) If <b>floor supports</b> less than 6x6 inches, or of cast iron or steel not properly protected, or if <b>strap iron stirrups</b> , decrease credit <i>b</i> two points.                |            |
| (4) If combustible <b>partitions</b> , decrease credit <i>a</i> two points and credit <i>b</i> one point.  |            |
| (5) If <b>wood platforms, galleries and (or) decks</b> of less than 3-inch plank, decrease credit <i>a</i> and <i>b</i> one point.   |            |
| iii. When ground floor of a building without basement is non-combustible .....   | Deduct 5%  |

-1911.

**Section A. Page 87. Item e.**

Strike out:

'and in cities where central station service can be obtained, credit should be reduced one-half."

---

-1911.

**Section A. Page 89. Contents Table No. 70.**

After Fifth Class Protection, insert:

(Deduct .04c for \*)

---

-1911.

**Section A. Page 90. Contents Table No. 75.**

After Fifth Class Protection, insert:

(Deduct .04c for \*)

---



-1911.

**ection A. Page 91. Contents Table No. 80.**

After Fifth Class Protection, insert:  
(Deduct .05c for \*)

---

-1911.

**ection A. Page 92. Contents Table No. 85.**

After Fifth Class Protection, insert:  
(Deduct .05c for \*)

---

-1911.

**ection A. Page 93. Contents Table No. 90.**

After Fifth Class Protection, insert:  
(Deduct .05c for \*)

---

-1911.

**ection A. Page 94. Contents Table No. 95.**

After Fifth Class Protection, insert:  
(Deduct .05c for \*)

---

-1911.

**ection A. Page 95. Contents Table No. 100.**

After Fifth Class Protection, insert:  
(Deduct .06c for \*)

---

-1911.

**ection B. Page 11.**

Insert items 105½ and 105¾:			
05½ Assayers (small).....	50%		D2½
1. Heat (C 2).			
05¾ Assaying Establishments.....	60%	20%	D2½
1. Additional labor, power, heat, etc. (C 3).			

---

-1911.

**ection B. Page 11. Item 108.**

Change to read:

08 Automobile Garages for storage and care of Automobiles in use (Public):

- a. Electric machines only (C 3½)..... 70% 30% D3
- b. \*Gasoline and electric machines:
  - 1. Not over 5 machines (C 3½)..... 100% 60% D3
  - 2. Over 5 machines (C 4)..... 110% 100% D3
- (Garages containing space for more than 5 machines should be treated under 2.)
- (For other charges see Automobile Stocks—charges 1 to 8 inclusive.)

NOTE: Automobile garages, private or industrial, including brewery, mill, delivery and mercantile, should be treated same as Automobile Stocks.



4-1911.

**Section B. Page 11. Item 109.**

Change to read:

**109 Automobiles in mercantile buildings.**

- a. Not over two gasoline machines, with warranty that no charging or repairing of machines is done in building (no charge for not over two electric machines)..... 30% D3

Balance of item remains unchanged.

4-1911.

**Section B. Page 11. Item 109½.**

Insert:

**100½ Automobile Repair Shops:**

- a. Not over 2 gasoline machines, see Machine Shops.
- b. \*Over 2 gasoline machines..... 90% 60% D3
1. Additional labor, power, heat, etc., with b (C 4).
- (For other charges see Automobile Stocks—charges 2 to 8 inclusive.)

4-1911.

**Section B. Page 11. Item 110.**

Change to read:

**110 Automobile Stocks:**

- Electric, Steam or Gasoline Machines..... 60% 20% D3  
(No gasoline on premises or in machines.)

4-1911.

**Section B. Page 11. Item 111.**

Change to read:

**111 \*Automobile Stocks, Gasoline Machines, with gasoline in machines only:**

- a. Not over 5 gasoline machines..... 70% 30% D3
- b. Over 5 gasoline machines..... 90% 60% D3
1. Labor (repairing), power, heat, etc., with a (C 3½), with b (C 4).
2. If combustible floor in room where gasoline is handled or stored or where filled machines are kept..... 20%

Insert after Sub-item 7b:

(Above charge may be waived for incandescent electric lights in fixed chandeliers, clusters or like devices attached to the ceiling. Not cumulative with 7a.)

Balance of item remains the same.



-1911.

ection B. Page 14. Item 142.

Change sub-item under Cooking to read:

For each stove, range or furnace over one used for cooking, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard 30%

---

-1911.

ection B. Page 17. Item 191.

Insert "S. R." after "Repositories."

---

-1911.

ection B. Page 18. Item 211.

Change sub-item under Cooking to read:

For each stove, range or furnace over one used for cooking, baking or laundering, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard 30%

---

-1911.

ection B. Page 20. Item 226.

Change paragraph in parenthesis to read:

(When cotton is stored in same premises with a mercantile stock the above classification should be used for entire contents when higher than the classification of the stock itself.)

---

-1911.

ection B. Page 22. Item 288.

Insert "\*".

Strike out: "If over one car load, rate as Hay Warehouse."

---



4-1911.

Section B. Page 23. Item 293½.

Insert:

93½	Fish Packing Establishments (not Stocks or Cold Storage Warehouses, which see).			
a.	Fish Packing, Storage, Shipping and Refrigerating .....	90%	60%	D3½
b.	Twine Houses.....	60%	20%	D2½
1.	Additional labor, power, heat, etc., with a and b (C 3).			
2.	Pitching and oiling furnaces (C 3½).			
3.	If pitching (cumulative with charge 2 for furnace) .....	20%		
4.	If dipping in linseed oil (cumulative with all other charges).....	40%		
5.	Ice House within 20 feet.....	20%		
c.	Ice Houses.....	90%	60%	

4-1911.

Section B. Page 24. Item 315.

Change sub-item Cooking to read:

For each stove, range or furnace over one used for cooking, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard 30%

4-1911.

Section B. Page 25. Item 318.

Change to read:

318 General Storage Warehouse should rate by stipulation with Warehouseman as follows:

- a. With Warehouseman's stipulation No. 1.... 30%
- b. With Warehouseman's stipulation No. 2.... 60% 20%
- c. With Warehouseman's stipulation No. 3.... 80% 40%
- d. \*With no stipulation except printed policy conditions ..... 120% 100%

1. If open lights or fires outside office (except approved oil lanterns):

- a. With stipulation No. 2..... 20%
- b. With stipulation No. 3..... 50%
- c. With no stipulation..... 100%

2. If no signs posted prohibiting smoking outside of office..... 20%

For stipulations and directions for figuring contents estimates, see "Listed Warehouses" Supplement.



-1911.

ection B. Page 26. Item 329.

In sub-items *c* and *d*, change "D3" to "D2½."

Strike out paragraphs reading:

"If cigars and tobacco insured specifically," etc.

"If policy form excludes cigars and tobacco," etc.

1911.

ection B. Page 27. Item 243.

Sub-item 9. Change to read:

9. If with enclosed platform stage and over  
three shifts of sliding scenery (in addition  
to charge 3)..... 20% D3½

Note at end of item. Change to read:

NOTE: Risk should be starred, all charges  
in column 1 increased one-half and contents  
should class as D4 in halls with both lifting  
as well as sliding scenery, or for stage  
with egress and ingress, dressing rooms,  
etc., beneath. If with both lifting scenery  
and stage as described, see Theatres.

1911.

ection B. Page 28. Item 349.

Change to read:

9 Hat Cleaning Shops.

a. Not over 5 hands.....	60%	20%	D3
b. Over 5 hands.....	70%	30%	D3
1. Additional labor with <i>b</i> (C 3½).			
2. Furnaces, dry rooms, etc., with <i>a</i> (C 3), with <i>b</i> (C 3½).			

Balance of item remains unchanged.

1911.

ection B. Page 28. Item 355.

Change to read:

5 \*Hemp Warehouses (unhackled)..... 120% 100% D3  
    1. Labor (hackling) (C 4½).

1911.

ection B. Page 28. Item 361.

Change sub-item under Cooking to read:

For each stove, range or furnace over one used for cooking, baking or laundering, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard 30%



1911.

ction B. Page 29. Item 363.

Change sub-item to read:

1. If stock of paints and oils, see Paints and Oils.
  2. If mixing by hand..... 30%
  3. If painting, see Paint Shops.
- 

1911.

ction B. Page 29. Item 364.

Change to read:

4 Household Furniture Warehouses (for stored household goods), see General Storage Warehouses.

---

1911.

ction B. Page 29. Item 376.

Insert:

- |                            |      |     |
|----------------------------|------|-----|
| Ice Houses, Consumers..... | 90%  | 60% |
| Ice Houses, Dealers.....   | 100% | 80% |
- 

1911.

ction B. Page 31. Items 419 and 420.

Change to read:

- |                               |     |     |    |
|-------------------------------|-----|-----|----|
| 9 Laundries (hand) small..... | 60% | 20% | D2 |
| 0 Laundries (steam).....      | 80% | 40% | D2 |

1. Additional labor and heat (C 2).  
Balance of item remains unchanged.

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1911.

ction B. Page 33. Item 441.

Change "D3½" to "D3."

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1911.

ction B. Page 34. Item 443.

Sub-item 19. Insert word "gasoline" before "automobiles" and before "machines."

Sub-item 20. Change to read:

20. If automobile charging, see charges under Automobile Stocks.  
If over two gasoline machines, see Automobile Repair Shops.
- 

1911.

ction B. Page 35. Item 462.

Change "D1½" to "D2."

---



-1911.

**ection B. Page 39. Item 513.**

Strike out words "(no processes)."

Change sub-item 2 to read:

2. If mixing by hand or painting on premises. 30%

Insert sub-item 3:

3. If over 15 barrels or if grinding or power  
mixing, see next item.

---

1911.

**ection B. Page 40. Item 540.**

Change to read:

0 Phonograph Stocks, S. R..... 50% D3½

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-1911.

**ection B. Page 40. Item 542.**

Change to read:

2 Photographers, Commercial..... 60% 20% D4

1. Additional labor, power, heat, etc. (C 3).

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-1911.

**ection B. Page 40. Item 548.**

Insert after sub-item a:

(If not over 5 hands, rate under b.)

---

-1911.

**ection B. Page 41. Item 558.**

Insert new sub-item 1:

1. Additional labor, power, heat, etc. (C 3).

Change present sub-items 1, 2 and 3 to 2,  
3 and 4.

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-1911.

**ection B. Page 42. Item 564.**

Insert sub-item 7:

7. Add for wet plate work in photo-engraving.. 30%

---

-1911.

**ection B. Page 42. Item 565.**

Insert sub-item 7:

7. Add for wet plate work in photo-engraving.. 30%

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-1911.

**ection B. Page 44. Item 588.**

Change sub-item under **Cooking** to read:

For each stove, range or furnace over one used for cooking, baking or laundering, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard 30%

---

-1911.

**ection B. Page 45. Item 607.**

Change sub-item **Cooking** to read:

For each stove, range or furnace over one used for cooking, increase above charge in column 1 one-fifth up to double the charge, counting each fire box in banks of ranges as one furnace. No additional charge should be made for small gas plates or griddles, gas or steam heated warming tables or urns.

If electricity or gas only is used for fuel in all heat devices, reduce total charge for cooking and additional devices one-half.

If heat devices on combustible floor not protected in a standard manner, double the net charge for cooking and additional devices.

If ventilating system from ranges not standard 30%

---

-1911.

**ection B. Page 47. Item 632.**

Change "charge" to "charges."

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-1911.

**ection B. Page 47. Item 638. Sub-item 3.**

Insert word "gasoline" before "automobiles" and also "machines."

**Sub-item 4.**

Insert word "gasoline" before "machines."

---

-1911.

**ection B. Page 47. Item 639.**

Change sub-item 1 to read:

1. For each additional 50 stalls or greater part thereof (maximum 60%) ..... 20%

**Sub-item 2.**

Insert word "gasoline" before "automobiles."

---



-1911.

**Section B. Page 48. Item 640.**

Change sub-item 1 to read:

1. For each additional 50 stalls or greater part thereof (maximum 100%) ..... 20%

**Sub-item 2.**

Insert word "gasoline" before "Automobile."

**Sub-items a and b.**

Insert word "gasoline" before "machines" in both a and b.

---

-1911.

**Section B. Page 50. Items 685 and 685½.**

Change to read:

85	Tobacco, domestic, in packages.....	50%	D2½
85½	Insert item 685½: Tobacco, leaf in bales or imported tobacco.....	50%	D3½

-1911.

**Section B. Page 52. Item 699.**

Strike out words "(no processes)."

Change sub-item 2 to read:

2. If mixing by hand or painting on premises. 30%

Insert sub-item 3 to read:

3. If over 15 barrels or if grinding or power mixing, see next item.
- 

4-1911.

**Section B. Page 53. Item 720.**

Change "g" to "f."

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4-1911.

**Section B. Page 53. Item 732.**

Change heading to read:

**732 Wire Workers (no oils used).**

Insert at end of item:

(If oils used, see Machine Shops, with oils.)

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4-1911.

**Section B. Page 57. Item d.**

Strike out:

"and in cities where central station service can be obtained, credit should be reduced one-half."

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4-1911.

**Section C. Page 7. Paragraph in middle of page beginning "Alcohol, whiskies, etc."**

Strike out words in parenthesis at end of paragraph:  
"(Whiskies in bonded warehouses are competitive, and at present, rate can be established only by judgment.)"

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-1911.  
ection C. Page 15. Note at top of page.  
Strike out the words "the highest" and insert "a."

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-1911.  
ection C. Page 15. Note d at bottom of page.

Insert the following paragraph:  
When motors are charged for in more than one occupancy, the total charge for motors should not exceed the maximum motor charge for occupancy of highest combustibility, plus the sum of the minimum motor charges for the other occupancies. In figuring such total, the motors should in every case be considered as original devices and not additional with other power devices, if any, in same occupancy.

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-1911.  
ection C. Page 16. Note e at top of page. Sub-item 4.

Change to read:  
4. If gravity or compressed air feed from inside or outside tank exceeding 1 gallon capacity.....20%  
(Cumulative with charge 3 above.)  
If gasoline tank in base of engine is not cast iron, treat as an unapproved receptacle. See page 24.

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-1911.  
ection C. Page 16. Location Table.

Change to read:

**LOCATION TABLE**  
**Location of Device in Room**

	Brick Buildings Steam Power	Buildings Other Power	Frame Buildings Steam Power	Buildings Other Power
With combustible partitions or ceiling (charge to be not less than for (C 1) in the open).....	80%	50%	90%	60%
Walls and ceiling fire-proof without ap- proved cut-off, or walls and ceiling non- combustible (2-inch wire lath and plaster or 3-inch tile) with approved cut-off 40%	40%	25%	50%	30%
Walls and ceiling fire-proof with ap- proved cut-off.....	0%	0%	0%	0%
<b>In Power House</b>				
Frame, iron-clad or brick-veneered with- out approved cut-off (charge to be not less than for (C 1) in the open).....	70%	40%	80%	50%
			(If communicating or detached less than 10 feet.)	
Brick or skeleton iron-clad without ap- proved cut-off (charge to be not less than for (C 1) in the open).....	50%	30%	60%	40%
			(If communicating or detached less than 5 feet.)	
Fire-proof or space under brick or stone sidewalk without approved cut-off (charge to be not less than one-fourth the charge for (C 1) in the open).....	30%	10%	40%	15%



-1911.

Section C. Page 17. Memoranda of Standard Arrangements for Steam  
Boilers. Floor, Item *a*.  
Change word "cen" to "cement."

-1911.

Section C. Page 19. Item 1. Sub-item *b*.

Change words in parenthesis to read:  
"(If gravity or compressed air feed from supply tank exceeding 1  
gallon capacity, increase charge 50 points, and, if supply tank  
in building, see page 24, item *e*.)"

Insert sub-item *c* as follows:

*c.* No charge need be made for not more than one plumbers' pot  
or blow torch used occasionally for private repairs.

-1911.

Section C. Page 19. Item 6.

Change to read:

**Location.** The charges for furnaces, independent or with kettles with  
non-combustible contents, as found in the preceding Furnace Table,  
apply to these furnaces when in the open in main building. When  
not so located, consult Location Table, page 16. In making deduc-  
tions for location, these furnaces should receive the same credit  
as Steam Power Devices.

The charges for steam kettles with combustible contents or  
fixed or stationary furnaces connected with ovens or kettles with  
combustible contents, as found in preceding table, should be re-  
duced one-half when found in fireproof room with standard cut-off  
and used for no other purpose.

-1911.

Section C. Page 21. Forges.

After "C 3½" insert "and over."

-1911.

Section C. Page 22. Dry Heat Boxes or Cauls.

Insert paragraph:

When a dry heat box or caul has no bottom other than the steam  
pipes which furnish the heat, or when heated by hot air from outside  
furnace or by steam pipes, located at sides and (or) overhead (not at  
bottom) the charge under any of the following arrangements may be  
reduced three-tenths.

-1911.

Section C. Page 23. Item *a*.

Sub-item 1. Insert note:

NOTE: When only occasional metal work, wood-  
work and (or) painting is done, charge should be  
made only for the most hazardous.

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4-1911.

**Section C. Page 23. Item b.**

Insert after heading:

"(If stored in room with acids or vegetable fibrous substances, as cotton, hay, hemp, tow, rags, etc., or in woodworking or other risks where vegetable dust or flyings are found, see last paragraph under item d.)"

Strike out sub-item 2.

Sub-item 3. Change to read:

2. Not over 100 barrels.....10%

NOTE: When over 100 barrels, etc.

Balance of item remains unchanged.

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4-1911.

**Section C. Page 23. Item c.**

Change to read:

c. Oils (lubricating, non-volatile and standard test coal oil) and alcohol for sale or use, unless kept either in vault or cut-off room.

Insert after heading:

"(If stored in room with acids or vegetable fibrous substances, such as cotton, hay, hemp, tow, rags, etc., or in woodworking or other risks where vegetable dust or flyings are found, see last paragraph under item d.)"

Change sub-item 1 to read:

1. Not over 5 barrels, no charge.

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4-1911.

**Section C. Page 24. Item d.**

Strike out words "standard test coal oil."

Strike out paragraph "In retail stores 1 barrel of standard test coal oil may be kept without charge."

In the paragraph "If the different kinds of oils," etc., change the word "rescribed" to "described."

To the paragraph "If stored in same room," etc., add: "and where the quantity is less than that covered under these charges, the minimum doubled charge should be made."

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4-1911.

**Section C. Page 24. Item f.**

Change to read:

**f. Gasoline Vapor Gas Lighting Machines, Lamps and Systems.**

1. If flame heated generator or common generator system is not enclosed in metal case of standard construction and installation.....Add 5%
2. If gasoline is fed to carburetor or generator by gravity feed or compressed air from supply tank or reservoir inside or outside of building exceeding one gallon capacity .....Add 20%  
NOTE: Where device is so arranged that gasoline cannot be forced through the generator and into the building in case of accident, charge 2 should not be made.
3. If gasoline in building inside or outside of machines, lamps or systems, see charges for storage under item e. Where gasoline is contained in fixed receptacles which have been tested and will withstand a pressure of not less than 350 lbs. to the square inch and are s. marked, and where pressure is automatically relieved and the contents can only be discharged outside of the building, no charge shall be made when quantity of gasoline does not exceed 6 gallons.

NOTE 1: Where gasoline is in more than one receptacle total amount should be used in figuring the charge.

NOTE 2: Gasoline inside the building in devices that are not of standard construction and installation should be treated as in unapproved receptacles, except as noted under 3.

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4-1911.

**Section D. Page 4.**

Second paragraph. Strike out entire paragraph reading:  
"Subsequent experience, however, \* \* \* municipal protection."

**Table of Alternative Standards.**

Strike out Column 2.

In Column 1, strike out the "3" that follows "%."

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4-1911.

**Section D. Page 21. Non-transparent Class.**

Place paragraph "Transmitted exposures to brick buildings," etc., before paragraph "Examples 15 and 16 show the same buildings," etc.

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4-1911.

**Section D. Page 36. Steel Buildings.**

Change to read:

**STEEL BUILDINGS**

These risks usually have a large amount of exposed window surface, but differ from ordinary B buildings in the fact that their interior construction does not contribute to combustion; hence their radiated exposure is determined by their contents. When they are occupied for mercantile or manufacturing purposes and contain large amounts of combustibles, as with Department Stores, etc., it is proper to charge normal radiated exposure as from ordinary B 1 buildings. Exposure from buildings occupied exclusively by Light Occupancies may be waived.

As to absorbed exposure, the buildings themselves appear to be as liable to exterior damage as ordinary B 1 buildings. In cities, these buildings often tower above blocks of ordinary B buildings, which radiate exposure through their roofs (see Section D, page 27) against a facing wall consisting almost entirely of window surface. There seems to be no escape from the conclusion that these buildings absorb the same exposure from adjoining roofs as ordinary B buildings of like construction.

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4-1911.

**Section D. Page 41. Ware-rooms.**

Third paragraph: Change word "chargfies" to "charges."

Item 11b, first line: Change first word "or" to "of."

Note 5. Change to read:

NOTE 5: When area of communicating ware-room is 25% or more of combined area of main building and ware-room, reduce contents differential one-fourth. Such reduction should not exceed one-half ware-room charge.

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4-1911.

**Section D. Page 42. Fourth Line.**

Change word "haard" to "hazard."

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4-1911.

**Section D. Page 43. Main Building and Ware-Room to Other Buildings.**

In paragraph "Ware-room detached or cut-off," etc., strike out words "80% of."

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4-1911.

**Section D. Page 45. Diagram 7.**

In paragraph "b to others," etc., change word "aud" to "and."

In paragraph ".12 x .9 (10 feet, frame to frame small)," etc., change "Diagram 5" to "Diagram 6."

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